A9385-12F 2/86

Academia's Response to State Mental Health System Needs

A Survey of Graduate Mental Health Education Programs in the West

WICHE

Academia's Response
to
State Mental Health System Needs

Donald J. Moore, M.A.
Meredith Davis, A.C.S.W.
Jan Mellon, Ph.D.

Western Interstate Commission for Higher Education

This report is published by the Mental Health and Human Services Program of the Western Interstate Commission for Higher Education (WICHE). WICHE is a nonprofit regional organization that works to assist the thirteen member states in providing high-quality, cost-effective programs to meet the educational and workforce needs of the West. Member states are Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming.

This document was made possible by funds provided by Grant Number 1 T23 MH17551-01 from the Center for State Human Resource Development, National Institute of Mental Health, and by funds provided by the western states to the Mental Health and Human Services Program. Views expressed in this report do not necessarily reflect the opinions or policies of the contributing states or WICHE.

Published December 1985
Western Interstate Commission for Higher Education
P. O. Drawer P
Boulder, Colorado 80302
An Affirmative Action/Equal Opportunity Employer
Publication Number 3B41
Printed in the United States of America
02-400-567-000-401:5C:1285:JL:WICHE:3B41

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Acknowledgements

The WICHE Mental Health and Human Services Program is pleased to publish the results of its survey of graduate mental health education programs in the thirteen western states. The publication may shed some light on the continuing debate about the relevance of mental health professional education to state workforce needs and the extent of collaboration with state staff to address public mental health service, training, and research needs.

We wish to express our appreciation to many individuals who have contributed to this publication in one way or another. The interstate core discipline task force of educators, service providers, and administrators has provided major assistance to WICHE staff on project conceptualization, questionnaire design, data collection and analysis, and development of the final report. Task force members, whose names are contained in the Appendix, volunteered their time and expertise at two all-day meetings, and responded in writing or by telephone to numerous staff requests for further input.

We wish to acknowledge the contributions of some 100 educators, service providers, and state administrators who have--over the past years--worked together in various state and regional conferences and activities to promote increased understanding of state service system issues and client populations, particularly the need to improve services and training related to chronically mentally ill clients. It became clear during these conferences and activities that there was more collaboration going on between educators and public sector service providers than many of us had thought and there seemed to be more of an interest and commitment on the part of educators to preparing graduates to meet needs of the state mental health system than had been recognized. Participants at the 1983 regional collaboration conference held in Park City, Utah, recommended that WICHE conduct a survey of mental health education programs in the West in order to get a more accurate picture of the various collaborative activities which are being conducted, the attitudes and commitment of education programs and faculty to state needs and issues, and the potential for improving collaboration for the mutual benefit of education and service provision.

We also wish to thank the Western States' Mental Health Human Resource Development Coordinating Council and individual state human resource development programs for their overall support of the higher education collaboration component of the WICHE Mental Health Program. Coordinating Council members were also helpful in following up with academic programs in their states to encourage them to return questionnaires.

Thanks are due to various WICHE staff who were responsible for design and preparation of the publication. Marie Sanchez did her usual excellent job of overall editorial direction and control. Edith Modafferi has coped admirably with the repeated changes, drafts, and the final preparation and typing of the manuscript and tables. The WICHE Communications Office has been most helpful to the project. Joyce Long is responsible for the graphic layout and development of exhibits presenting data highlights in the text and Ellen Peterson provided a final editing and format assistance.

Lastly of course we are indebted to the ninety-five education programs which filled out questionnaires and provided the data for the study. We also wish to thank the eleven additional programs who did not provide data for one reason or another or provided data too late to be analyzed but who took the time to respond to our request for information.

Our association with all these individuals and projects has been a rewarding experience for the authors.

Don Moore, M.A.
Meredith Davis, A.C.S.W.
Janice Mellon, Ph.D.

I. Introduction

This report is about the graduate training of mental health professionals and the relationships between the educational programs training these professionals and the state mental health service agencies which employ them.

States' efforts to improve the effectiveness and efficiency of mental health services depend to a very large extent upon the competence and productivity of the public mental health workforce because 80 percent or more of the cost of mental health care is the professional, paraprofessional, administrative, and support personnel required to provide mental health services.

Background

The Role of Core Discipline Professionals in the Mental Health Workforce

The four disciplines of psychiatry, psychology, social work, and nursing make up a substantial proportion of the mental health workforce. Citing data from the Inventory of Mental Health Organizations (IMHO) conducted annually by the National Institute of Mental Health (NIMH), Jenkins and Turk (1983, p. 100) state that: "In 1978 there were almost half a million filled staff positions in mental health facilities in the United States..." and that these were "... divided about equally among: professional patient care staff (36%); other patient care staff with less than a baccalaureate degree (32%); and administrative, clerical, and maintenance staff (32%)."

Table 1, derived from 1978 IMHO data (NIMH, 1983), presents the percentages of the mental health workforce belonging to each of the four disciplines. When data from all facilities are considered together, Table 1 shows that core discipline mental health professionals comprise 21.6 percent of all staff FTEs and 31.9 percent of patient care staff FTEs. "All facilities," as defined in the NIMH IMHO data, includes state and county psychiatric hospitals, private psychiatric hospitals, and psychiatric units of community and private hospitals, community mental health centers, private outpatient clinics, V.A. hospitals and psychiatric units and children's residential treatment centers.

When characteristics of the public mental health workforce are examined separately for psychiatric hospitals and for community mental health centers (CMHCs), it becomes apparent that the staffing patterns of these two types of facilities differ considerably, with a much greater proportion of the patient care staff of CMHCs being graduate professionals (44.3%), compared to the corresponding proportion (18.8%) of the patient care staff of state hospitals.

A survey of state hospitals and state-supported CMHCs in eight western states conducted by WICHE in 1981 found similar, but more pronounced differences in the staffing patterns of these two types of facilities, with 15.4 percent of state hospital patient care staff being graduate-level psychiatrists, psychologists, social workers, and nurses, and 56.8 percent of CMHC patient care staff being graduate core discipline professionals (Davis et al., 1985).

The WICHE study further found that core discipline professionals were very well represented among the upper level management of both CMHCs and state hospitals (Davis & Greenhalgh, 1985). Executive directors and clinical directors of hospitals and CMHCs were from the four disciplines in 83 percent or more of the facilities which responded. Most directors of patient care programs or program units within facilities were also graduate core discipline professionals. Furthermore, the WICHE data presented in Table 2 indicate that 47.3 percent of graduate professional staff in the four disciplines are managers or supervisors in state hospitals and CMHCS in western states. This percentage ranges from 35.4 percent of master's-level psychologists to 62.5 percent of graduate-level nurses.

The State Mental Health System

State mental health agencies are the largest providers of mental health services. In 1983 7.1 billion dollars was allocated to mental health services by state mental health agencies. It is estimated that an additional 5 billion is provided by other state and federal agencies for public sector mental health services (NASMHPD, 1983).

State mental health services are provided through state and county psychiatric hospitals, through state-operated CMHCs or programs, and through contracts or grants to private non-profit mental health centers and clinics. It is estimated that 60 percent of the mental health care dollar in the United States is provided by states (Redick et al., 1985). A similar proportion of the mental health workforce is, therefore, affected by the needs, problems, and policies of state mental health agencies.

Professional Mental Health Education

Federal involvement in the support of clinical training of mental health professionals began with the establishment of the NIMH in 1948. One of the major mental health problems identified at that time was the shortage of psychiatrists and other mental health professionals. NIMH support for clinical training was accelerated during the 1960s with the development of CMHCs. The increase in total national supply of core discipline professionals was dramatic between 1960 and 1976. Psychiatrists increased from 16,302 in 1963 to 27,076 in 1976; psychologists, as measured by increases in American Psychological Association membership, rose from 18,215 in 1960 to 44,500 in 1977; social workers, as measured by membership in the National Association of Social Workers, increased from 26,226 in 1960 to 75,197 in 1977; and growth in master's-level nurses was from 1,197 in 1960 (of which 193 were psychiatric nurses) to 3,437 (551 psychiatric) in 1976. Baccalaureate nursing increased substantially from 4,136 in 1960 to 22,678 in 1976. (Osternall, 1978).

Initially federal mental health human resource policy rested largely on the assumption that problems in service delivery could be dealt with by simply producing more and better-trained professionals. Since 1969, continued shortages of certain mental health professionals in state hospitals, rural areas, inner city areas, and shortages of professionals trained to provide services to the more severely disabled population continued to be a problem in spite of the dramatic increase in numbers of mental health professionals.

NIMH (and in many cases state) support for preservice mental health training had few strings attached until the middle or late 1970s. This seems to have had the effect of isolating mental health training institutions from mental health service provider agencies, particularly public sector agencies. Many programs focused their efforts on training professionals for the private sector, emphasized developing skills in individual therapy, and concentrated on the mental health problems of individuals who are deemed most amenable to treatment. However, recent developments at the NIMH and within the states are beginning to change this picture.

The Alcohol, Drug Abuse and Mental Health Administration (ADAMHA) manpower policy analysis task force was formed in February 1978 in response to a request for a comprehensive analysis of all manpower and training activities within the agency. The report of the task force (ADAMHA, 1978) recommended, among other things, the development of initiatives to focus training activities specifically on shortage areas and to initiate a program for state mental health human resource development programs to focus on state mental health staffing needs.

The Shortage of Mental Health Professionals in the West

The western states, as a region, have ranked behind the East in both utilization and graduate training of mental health professionals. Ten of the thirteen western states rank below the national average in numbers of psychiatrists per 100,000 population. The five western states which do not have psychiatry residency programs within their borders rank 33rd, 43rd, 46th, 50th, and 51st among the fifty states and District of Columbia in numbers of psychiatrists per capita. Similar patterns are seen among other disciplines. Nine of the thirteen states rank below the national average in numbers of psychologists per 100,000 population. Twelve of thirteen western states rank below the national average in rate per 100,000 for clinical social workers. Twelve of the thirteen states rank below the national average in number of mental health nurses as a percent of total registered nurses (Taube & Barrett, 1983).

This relative shortage of mental health professionals in western states is reflected also in the training of mental health professionals. A study conducted by WICHE in 1970 indicated that two-thirds to three-fourths of the mental health professionals practicing in western states received their professional training outside of the state in which they were currently employed. Furthermore, approximately two-thirds of psychiatrists and slightly less than half of psychologists, social work, and nursing mental health professionals received their professional training outside the WICHE region.

The lack of mental health education programs in the WICHE states in the late 1950s and the shortage of graduate-level mental health professionals in mental health service agencies at that time were responsible for the creation of the WICHE Mental Health and Human Services Program in 1957. The initial objectives of the program were to address shortages of mental health professionals in the West and to stimulate college and universities to expand mental health education and research programs. The number of graduate education programs in psychiatry, psychology, social work, and nursing have increased over the past 25 years, but the proportion of these professionals trained in western states continues to lag behind the national average.

Emergence of the Collaboration Concept

A number of factors have come together during the past decade encouraging closer collaboration between mental health clinical training programs and state-supported mental health facilities. The report of President Carter's Commission on Mental Health (1978) identified a number of gaps in service and unserved or underserved client populations. Coming at least partly from the President's Commission Report were renewed initiatives on the part of NIMH and the states to serve chronically mentally ill (CMI) individuals more appropriately; to organize coordinated systems of care for severely emotionally disturbed children and youth; and to provide more appropriate services for the elderly, mentally ill offenders (MIOs), rural area residents, and minority individuals with mental health problems.

The ADAMHA manpower policy analysis task force recommendations have resulted in the focusing of federal dollars on training professionals to serve in underserved geographic areas and to provide services to underserved client populations. One of the goals of the federal funding of state mental health human resource development programs is to promote closer collaboration between university training programs and state mental health agencies and service providers.

Reduced federal funding for both services and training by the Reagan administration and a shifting of responsibility for CMHCs to state agencies have made it necessary for both systems to consider ways to maximize utilization of limited resources and to develop joint strategies to maintain the quality of services and training.

WICHE's Efforts

WICHE's recent efforts to improve relationships between higher education and the state service system began in 1982 with the involvement of higher education core discipline faculty in Community Support System learning workshops in Federal Regions IX and X. Special sessions were held to explore higher education's role in training students to better provide services to CMI clients and in conducting research helpful to community support programs for CMI clients.

Later in 1982, WICHE sponsored a conference on "Improving Staff Availability and Competencies to Serve the CMI" which involved university educators, service providers, and state administrators and planners from Colorado, Wyoming, Utah, and Montana. This very productive meeting resulted in a number of specific suggestions for curriculum change, increased collaboration between educators and providers, staff exchange, interdisciplinary training and involvement of providers in educating students and faculty in providing services and research in provider agencies.

A second conference in 1983, "A Collaborative Approach to Increasing Interest in the Chronically Mentally Ill," expanded upon the 1982 meeting in both content and geographical coverage. Arizona, Nevada, and New Mexico joined the original four states; and although the theme of the meeting was collaboration to improve services to the CMI, the group expanded its interest and concern to other public priority service groups and related issues.

Among the recommendations coming out of the 1983 conference was a request that WICHE conduct a "curriculum survey" of core discipline programs in the thirteen western states to determine the relevance of curriculum to the needs of the public sector service system. A task force made up of service providers, educators and state administrators was formed to guide WICHE in conducting the study. Members of this task force are listed in Appendix A. Communication with the task force made it apparent that the questions to be answered by the study went beyond mere curriculum content; thus the term "curriculum survey" was replaced by "core discipline survey."

Purposes of Survey

One of the problems in mounting full-scale efforts for more productive collaboration between training programs and public sector service agencies has been the lack of information about the current status of relationships between state service providers and mental health educators.

This survey was conducted for the purpose of answering the following questions.

- What collaborative efforts are taking place between training programs and public sector service agencies?

- How do training programs relate to the knowledge and skills needed by professionals who may take positions in the public sector mental health system?

- How and how well are university mental health professional education programs preparing their graduates to serve state priority client groups, such as chronically mentally ill clients, mentally ill offenders, and severely disturbed children and youth?

- Do mental health education programs consider it to be their role to prepare graduates to work with state priority client groups?
- Are the training programs able and willing to adapt their preservice programs' curricula and field experiences to more effectively meet state mental health system needs?
- What barriers or problems prevent higher education from giving more attention to these client groups?
- To what extent is university research focusing on issues of concern to state administrators and policy makers?
- What suggestions do educators have to improve collaboration with state service providers?

Organization of This Publication

The next chapter describes the methods used to develop and administer the survey and some of its limitations.

For ease in relating the large amount of information presented in this publication, the results section of this report is divided into four chapters. Chapter III addresses the supply of mental health professionals. Chapter IV examines the preparation of graduates for service to priority client groups while Chapter V deals with programs' preparation of graduates to work in the public mental health sector. Chapter VI presents results pertaining to working relationships between higher education and the state mental health system. Each of these chapters contains a brief description of some of the topics covered in that chapter, followed by a list of chapter highlights, and more detailed results.

Finally, Chapter VII presents conclusions and recommendations. The tables and figures referred to in the narrative are grouped together at the end of Chapter VII. Various appendices, including a list of education programs which responded to the survey and a copy of the survey form follow.

II. Methods

Role of Task Force

The study has been guided by a task force made up of service providers, educators, and state-level administrators from the western states. The task force assisted WICHE staff in clarifying the purposes of the study, designing the survey instrument, identifying appropriate recipients of the survey questionnaire, gaining support for completion and return of the questionnaire, and reviewing a draft of this report before publication.

The Survey Instrument

The survey instrument was a twelve-page questionnaire containing instructions, definitions, and 39 questions designed to measure program characteristics, preparation of graduates to work in the state-supported mental health system, and working relationships of programs with the state mental health system. A copy of this "Core Discipline Survey Questionnaire" is provided in Appendix B.

Survey Coverage

It was decided that all graduate programs in nursing, social work, and psychology, as well as psychiatry residency training programs associated with universities, in the thirteen western states would be surveyed. A mailing list was derived from the 1984 Directory of Psychiatry Residency Training Programs, the 1984 edition of Graduate Study in Psychology and Associated Fields, a list of graduate programs in social work provided by the Council on Social Work Education, and a list of graduate nursing programs in the West provided by the Western Council on Higher Education for Nursing (WCHEN). Psychology programs surveyed included all graduate clinical and counseling psychology programs identified in the 1984 directory.

The initial mailing of 152 questionnaires occurred on October 15, 1984. Two follow-up mailings were sent--in mid-November and early December--to those programs which had not returned the survey questionnaire. Assistance in encouraging responses was provided by task force members, members of the Western States' Mental Health Human Resource Development Coordinating Council, and other supporters of the study. Table 3 shows the number of programs surveyed by discipline and by state. Exhibit 1 on page 11 graphically portrays highlights from Table 3.

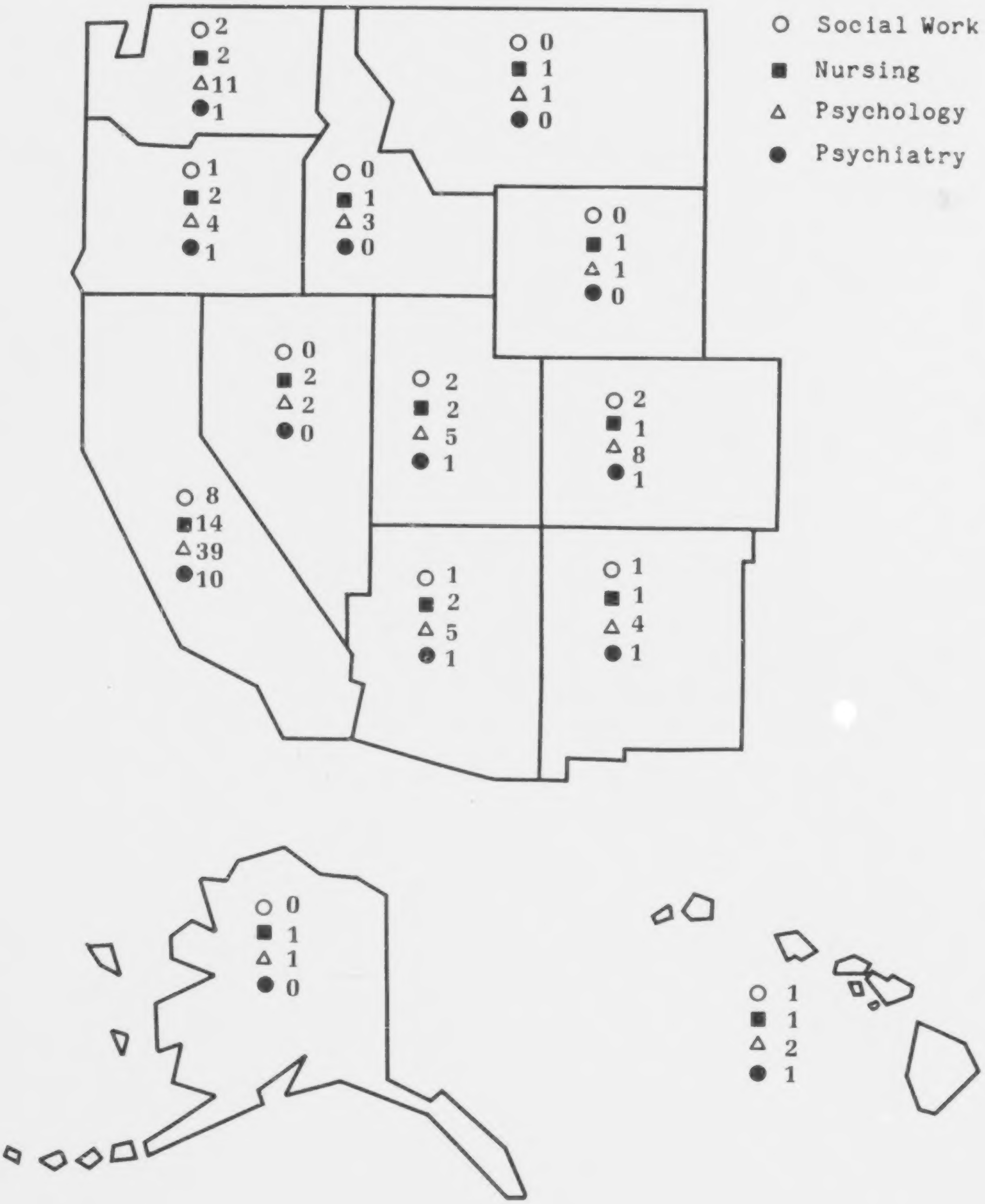
Each of the four disciplines is not represented in many of the smaller states. For example, Alaska, Idaho, Montana, Nevada, and Wyoming do not have graduate social work programs or university-sponsored psychiatric residency programs. Lack of response by programs in additional states resulted in only five of the thirteen states surveyed being represented in all four disciplines. This confounding of state and discipline makes it difficult to interpret results involving differences among states, because any differences among states could be due to differences in the types of programs represented rather than to differences in state characteristics. On a more positive note, a Chi-square analysis found that most of the states were represented approximately equally in each of the four disciplines. This result means that the confounding of state and discipline is not severe enough to make comparisons among the different disciplines invalid. Therefore, most analyses in this report compare the disciplines but do not compare states.

Response Rates

All programs returning questionnaires are listed in Appendix C. Of 152 questionnaires mailed out, 95 were completed and returned before the data analysis was begun, producing an overall response rate of 62.5 percent. Ten additional programs are listed in Appendix C, but are not included in the data analyses either because they did not complete the questionnaire, returned it after the data analysis was completed, or the particular programs were found to be inappropriate for our sample.

Response rates varied with the type of program surveyed, with the highest response rate of 67.7 percent coming from nursing programs, followed by a response rate of 64.0 percent for psychology programs, 61.1 percent for social work programs and 47.1 percent for psychiatry programs.

Exhibit 1
Number of Programs Surveyed by Discipline and State


○ Social Work
■ Nursing
△ Psychology
● Psychiatry
○2 ■2 △11 ●1
○ 0 ■ 1 △ 1 ● 0
○1 ■2 △4 ●1
○0 ■1 △3 ●0
○ 0 ■ 1 △ 1 ● 0
○ 0 ■ 2 △ 2 ● 0
○ 2 ■ 2 △ 5 ● 1
○ 2 ■ 1 △ 8 ● 1
○ 8 ■14 △39 ●10
○ 1 ■ 2 △ 5 ● 1
○ 1 ■ 1 △ 4 ● 1
○ 0 ■ 1 △ 1 ● 0
○ 1 ■ 1 △ 2 ● 1

Response rates also differed for different states, as shown in Table 4. Forty percent of the programs responding were from California, which had a relatively low response rate of 53.5 percent. When California, with its particularly low response rate, is excluded from the response rate totals, the overall response rate increases to 70.4 percent.

Description of Sample: Programs Responding by Discipline and State

Table 5 reports the number and percent of total respondents by program discipline and state. The number of respondents ranged from one program in Idaho (1.1% of respondents) to 38 in California (40.0% of respondents).

The majority of programs responding were from psychology (55 programs, 57.9% of respondents), followed by nursing (21 programs, 22.1 percent of respondents), social work (11 programs, 11.6% of respondents), and psychiatry (8 programs, 8.4% of total respondents). The twenty-three psychology programs in California alone accounted for 21.9 percent of all programs responding.

Limitations of the Study

The following limitations of the survey should be kept in mind when examining the findings and conclusions presented.

Limited Scope of the Survey

Only graduate-level preservice programs in psychology, social work, and nursing and university-based residency programs in psychiatry were surveyed. This survey did not include those programs training graduate professionals in the various rehabilitation therapies, marriage and family or pastoral counseling, and other disciplines which make up a fairly significant portion of graduate-level professionals in the state-supported service system. It did not survey B.A.-level social work, psychology, or nursing programs nor A.A. degree or certificate programs training mental health workers, L.P.N.s, etc. This lack of coverage is particularly significant in examining findings related to nursing inasmuch as the overwhelming majority of nurses in the public system are

B.A.-level, other R.N. and L.P.N.-trained. In order to keep this preliminary effort manageable, WICHE and the task force chose to conduct a study of graduate-level programs only. If the results of this survey prove useful, some of the additional programs mentioned above may be surveyed in the future.

Subjectivity of Responses

The survey depends entirely on information, assessments and opinions of the individual or individuals filling out the survey form for each training program. There was a fairly wide variation in how completely the questionnaires were filled out by individual respondents. Some questions were interpreted differently by different respondents and in a few cases questions seemed to be so confusing that the resulting data were not analyzed. Many of the questions regarding preparation of students for serving different client groups, and level of collaboration with state facilities represent the subjective rating of the respondents. Another respondent from the same training program or a service provider hiring graduates of that program might well have responded differently.

Descriptive Nature of the Study

The study is in no sense an evaluation of the training programs' curricula or field experiences or an evaluation of the level of collaboration or quality of training within or among training programs or disciplines. Information is descriptive only.

Possible Non-Representativeness of Respondents

The response rates, while good for a survey of this type (62.5 percent for all programs surveyed), do limit the conclusions which can be drawn from the data. It is always possible that training programs which collaborate more closely with the state or which tend to consider state needs in preparing graduates may be more likely to respond to this type of survey then those which do not.

Differing Characteristics of Core Discipline Training Programs

When comparisons are made between the four disciplines of psychiatry, psychology, social work, and nursing, it should be remembered that these four groups vary widely in their missions, the proportion of students trained for the mental health system, and the methods and characteristics of the professional training delivered. These differences render problematic certain comparisons among the four disciplines.

For instance, psychiatry is a specialty in the field of medicine in which the psychiatric training is provided through residency placements in psychiatric facilities.

In contrast to psychiatry where all psychiatrists specialize in mental health, only about five percent of nurses identify psychiatric/mental health nursing as their area of clinical practice. (Jenkins & Turk, 1983). At the graduate level, psychiatric nursing is a two-year specialty and is only one of a number of specialty nursing graduate degrees, comprising about sixteen percent of the full-time enrollments and graduates from masters-level nursing programs for the 1979-1980 academic year (National League of Nursing, 1980). WICHE surveyed all graduate-level nursing programs, some of which did not have psychiatric nursing specializations. Therefore, comparing nursing program responses with psychiatry responses is misleading; strictly speaking the proper comparison group for all nursing programs should be all residency programs in medicine.

In social work, the M.S.W. degree is a generic degree with most graduates entering the field of social welfare rather than mental health. Because many social work graduates will take administrative positions in state and local public welfare agencies as well as in mental health, social work programs tend to provide more training in policy development and agency administration than do other disciplines.

On the other hand, unlike nurses, many M.S.W. graduates do take jobs in the mental health sector even though the program from which they graduated might not have a psychiatric specialization. It is estimated that about twenty-five percent of all social workers are primarily involved in the field of mental health (Jenkins & Turk, 1983). Finally, social work students may receive field work experience in state hospitals or CMHCs, even if they are not enrolled in a mental health specialization.

When surveying psychology, the current survey included master's programs in clinical psychology which were located in programs in psychology departments and master's programs located in education or counselling as well as Ph.D. and Psy.D. programs. There is undoubtedly a difference among these programs in emphasis and in proportions of graduates who end up working in mental health. This survey did, however, eliminate psychology programs which were not clinical in nature.

III. The Supply of Mental Health Professionals

This chapter provides some basic information about the supply of mental health professionals being generated by graduate-level programs in psychiatry, psychology, social work, and nursing in the thirteen western states. Issues and concerns addressed include: how core discipline professionals are trained; the number and distribution of mental health education programs and graduate professionals trained; the role of field placements in professional education; and some estimates of proportions of mental health professional graduates who are entering employment in state mental health systems.

Chapter Highlights

- Psychology and social work programs are clearly the major suppliers of graduate professional mental health personnel in the western states.
- Psychology students seem to be overrepresented relative to their corresponding proportion in the mental health workforce in the West, whereas psychiatrists in residency training are severely underrepresented relative to workforce needs.
- Five of the western states are almost totally dependent on education programs in other states for mental health professionals to work in their states' systems, because psychology and nursing are the only graduate-level education programs in those states.
- Field placements are a required aspect of professional education in all disciplines. About 37 percent of master's students and 63 percent of Ph.D. students are in a field experience or internship placement.
- Of the programs responding, slightly more than half of psychiatric residents, 35 percent of nursing, 31 percent of psychology and 26 percent of social work students in placement are placed in state mental health facilities.
- Social work and nursing programs with mental health specializations have substantially more placements in CMHCs and other mental health agencies than do those without a mental health specialization. However for

state hospital placements, nursing and social work programs without mental health specializations have a greater portion of these placements than nursing and social work programs with specializations.

- Over half of survey respondents were able to provide information on where their graduates were employed after graduation. Slightly more than a quarter of these programs' graduates are employed in public sector mental health agencies. The percents are very similar for all disciplines, with slightly more psychology graduates employed in state mental health agencies than other disciplines.

How Core Discipline Professionals Are Trained

This section describes how mental health training is structured for each discipline and the impact of differences among disciplines on the supply of graduates who may accept jobs in the public mental health sector.

Psychiatry Residency Training

Psychiatry is only one of a number of specializations a physician may enter. In order to become "board eligible" as a psychiatrist, a physician must complete a psychiatric residency consisting of either a one-year internship plus three years psychiatric residency or four years of psychiatric residency, depending on the program. A residency program may be sponsored by a provider facility or by a university psychiatry program. Freestanding psychiatric residencies sponsored by private hospitals, state hospitals, and/or V.A. hospitals were the most prevalent type of residency program until the last few years. Many, perhaps most, state hospitals once depended on residents and their psychiatric residency programs to provide much of the treatment in state hospitals. During the past fifteen to twenty years, there has been a marked decline in the number of physicians selecting psychiatry as a specialization. This decline, together with legislation reducing and eliminating psychiatric residency opportunities for foreign medical graduates, has led to the elimination of virtually all state hospital freestanding psychiatric residencies, at least in western states.

University psychiatric programs have taken the initiative or have been asked by freestanding programs to coordinate residencies in most of the states in the West. Residents still may be placed in state hospitals, private hospitals, and/or V.A. facilities as well as university hospitals, but these facilities work together with the university psychiatry program to coordinate residency placements, develop means to attract residents to the state, and provide the supervision and course work required for completion of a psychiatric residency. This situation also makes it possible for a given resident to have several types of experience (e.g. state hospital, V.A., private facility etc.) during the residency years.

Psychiatric Nursing Education

A graduate-level psychiatric nursing program is one of a number of specializations open to registered nurses who have a baccalaureate degree in nursing. Not all graduate-level nursing programs have a specialization in psychiatric nursing. In the western states, all thirteen states have graduate-level nursing programs, but only nine states have nursing programs with a psychiatric nursing specialization. Fifteen of the twenty-one nursing programs which provided usable data for this survey have graduate-level psychiatric nursing specializations. Several programs which were surveyed informed WICHE that they did not have a psychiatric specialization and, therefore, were not responding to the questionnaire. Other programs without mental health specializations did provide data to WICHE. In considering comparisons among disciplines in the findings presented in this publication, the reader should be aware that at least six of the programs responding do not have a psychiatric nursing specialization and therefore would not expect to be very closely associated with state mental health facilities. Separate analysis of nursing programs with psychiatric specializations on some questions documents that those programs are much more closely related to state mental health facilities than are nursing programs without mental health specializations.

A master's degree in a specialized field of nursing generally requires two years after the B.S. degree. Field experience is a requirement. Generally it must be in a program in which a master's-prepared nurse in that specialty is employed. A master's thesis or master's-level project is generally required in addition to field experience and course work. Compared to the other three basic mental health disciplines, very few graduate-level psychiatric nurses are graduated each year.

Social Work Graduate Education

Social work is like nursing in that preparation of students to engage in psychiatric social work is not the primary mission of most social work programs. More graduate-level social workers are employed in social service agencies, child welfare services, community organizations and other social and health facilities than work in mental health facilities. However, most graduate-level social work programs operate on the assumption that a generic set of skills and knowledge prepares graduates to serve in a number of settings, including mental health facilities. Much of the specialized knowledge and skills that may be needed in a mental health setting are conveyed through field experience and associated supervision in a psychiatric facility. Some specialized programs in mental health have been developed in some social work programs during the last few years--seven of the eleven social work programs responding to the WICHE survey have mental health specializations. Unlike nursing, social work programs with mental health specializations do not differ markedly from programs without mental health specializations in their responses to questions on this survey.

Master's-level programs in social work generally require two years each of course work and field experience. Field experience during the first year is often in a very general setting such as a welfare department or other general social service setting; during the second year attempts are made to find more specialized settings, such as mental health centers, which fit in with the student's specific interests and goals. A master's thesis or joint project with other students is generally required for the completion of the master's degree in social work. In considering data on supply in this chapter, the reader should be aware that fewer than half of all social work graduates have any interest or intention to work in any kind of mental health facility, public or private.

Psychology Graduate Education

Clinical psychology differs from the other disciplines in that the terminal degree in clinical psychology is considered to be the Ph.D or Psy.D, rather than the master's degree. The American Psychological Association (APA) has a set of general guidelines for course work and standards that programs approved by the APA must meet. These include course work and practica in psycho-therapy, psycho-diagnostic testing and community psychology as well as statistics research methodology. The model followed by most doctoral-level programs provides for clinical psychologists to be both practitioners and scientists. Once course work and practica are completed, doctoral students must complete a one-year internship and a doctoral dissertation prior to being granted a Ph.D. degree. Outside of California, there are relatively few APA internship sites in the western states. Also, Ph.D. programs tend to encourage their doctoral students to serve internships in a state other than the one in which the Ph.D. will be granted. All but one of the western states have Ph.D. clinical psychology programs.

Master's-level clinical or counseling psychology programs are more variable in course content, field experience requirements than are Ph.D. programs. Most Ph.D. programs also grant master's degrees, although Ph.D. students are not required to have a master's in order to work toward the doctorate. There are no standardized models for master's programs nor are there comparable certification procedures for these. In most states individuals with master's degrees are not eligible for license/certification as psychologists. About half the graduate-level psychologists working in state facilities have Ph.D.s and about half have master's degrees.

The Number and Distribution of Mental Health Education Programs

This survey identified 152 programs in the thirteen western states which train at the graduate level psychiatrists, psychologists, social workers, and nurses. As shown previously in Table 3, almost half of these programs are located in California. California has almost as many graduate mental health programs as the other twelve states combined. Approximately 45 percent of graduate-level nursing, social work, and psychology programs and 59 percent of university-sponsored psychiatry residency training programs are located in California. If freestanding psychiatry residency programs are included, 66 percent of all psychiatry residency training programs in the West are in California.

Five of the western states--Alaska, Idaho, Montana, Nevada, and Wyoming--do not have psychiatry residency programs or graduate-level social work programs within the state. Graduate nursing programs in these states, with the exception of Montana, do not train psychiatric nurses at the graduate level.

Clinical and counseling psychology programs at both the doctoral and master's levels are more prevalent and more widely distributed in western states than are programs from the other mental health disciplines. Twelve of the thirteen states have Ph.D. clinical psychology programs and all states have master's-level psychology programs.

Except for California, states which do have the full complement of core discipline education programs generally have only one or two programs in each discipline within the state.

This is true of all disciplines except master's-level psychology programs.

There are only four non-university-affiliated psychiatry residency programs in three states outside California. One of these programs is a state hospital residency, one is a military facility residency, and two are in private hospitals. Psychiatric residencies in all private as well as public hospitals and community facilities are coordinated through the state university psychiatry program in all other states.

The Number of Mental Health Professionals Being Trained in the West

Students Enrolled in and Graduate Degrees Offered by Programs

Table 6 shows the average and total number cf students enrolled and graduated and the range of students enrolled and graduated by program discipline. Question 7 asked degree-granting programs responding to the survey to indicate each degree offered, and the number of students currently enrolled and number of graduates for the 1983-4 academic year for each degree.

Question 9 asked psychiatry residency programs to report the number of individuals enrolled in residency programs. Table 6 also shows the eight psychiatry residency programs that responded to question 9. The total number of individuals in residency training reported by the eight psychiatry programs ranged from 12 to 83 with a mean of 32.4. By year in program, the average number of residents was 6.1 for year one, 8.0 for year two and year three, and 7.8 for year four. Residents in years one, two, three, and four appear in the "Students Enrolled" portion of Table 6, while fourth-year residents were used to estimate the number of graduates and appear in the "Students Graduated" portion of Table 6.

As Table 6 indicates, the discipline with the largest average number of students enrolled per program and averaging the largest number of graduates per program was social work, followed by psychology, nursing, and finally psychiatry.

Using the total number of students shown in Table 6 as enrolled, it is clear that the psychology programs in our sample are educating the largest numbers of mental health professionals with social work and psychology programs both providing large numbers of students graduated.

More detailed information from question 7 is presented in Table 7. This table shows, for each discipline, the number of programs offering a particular degree and the average and total number of students enrolled and graduated for the academic year 1983-84. Note that the total number of programs listed for each discipline may exceed the actual number of respondent programs for that discipline reported earlier in this document, since many programs offer more than one degree.

What Proportion of Mental Health Professionals Are Being Trained by Each Discipline?

Which disciplines are providing the mental health workforce with the largest numbers of mental health professionals? In order to answer this question, it is necessary to correct the totals in Table 6 for response rates, because different proportions of programs in each discipline are represented in the data from survey, as evidenced by the differential response rates of 61.1% for social work, 67.7% for nursing, 64.0% for psychology and 47.1% for psychiatry. This correction was accomplished by dividing each discipline's total by the proportion of programs belonging to that discipline responding. The total for a discipline with a response rate of fifty percent, for example, would be divided by .50, which would have the effect of doubling it. Values for totals corrected for differential response rates appear in parentheses in Table 6.

For psychiatry residents the corrected figures for total residents and annual "graduates" are more suspect than for other disciplines. Because the major purpose of this study was to look at relationships between academic programs and state service providers, only psychiatric residency programs sponsored by universities were surveyed. The fifteen private, state hospital, or military psychiatric residency programs in the western states were not surveyed. Eight of the seventeen university programs which were surveyed responded and are included in our sample. Therefore, our data represent 25 percent of all residency programs in the West and a response rate of 25.0 percent was used to correct totals for psychiatry.

This correction did not affect the ranking of disciplines; psychology is still found to provide the largest number of students enrolled and social work to supply the largest numbers of students graduated.

Does Supply Match Workforce Need?

Are the numbers of students trained in the West by each of the disciplines commensurate with the relative proportions of mental health patient care staff belonging to that discipline as reported by NIMH and by WICHE data for western states? Data on the total number of students enrolled and graduated for each discipline, corrected for differential response rates, were converted to percentages and appear in Table 8, as do data from the 1978 IMHO Inventory (NIMH, 1983) and the WICHE Human Resource Data Base. The number of graduate nurses in the NIMH data set was estimated by multiplying the number of registered nurses by 12.8%, the percentage of registered nurses who have master's degrees as estimated by Jenkins and Turk (1983).

Workforce data on graduate staff from the four disciplines are used here in an attempt to estimate the needs for mental health professionals for each of the disciplines. Comparison of the proportions from the data sets shown in Table 8 allows one to compare estimates of supply of profesionals to estimates of needs. A comparison of percents of students enrolled and graduated with percents of professionals utilized in all public and private mental health facilities reporting to NIMH (column 3) indicates that:

The proportion of students enrolled in social work training programs is somewhat lower than the proportion of core discipline professionals who are social workers in mental health facilities, but the proportion of students graduated by social work programs is about equal to the proportion of staff reported by NIMH.

Psychology students as estimated by this survey appear to be over-represented relative to their corresponding proportion in the mental health patient care workforce, as reported by NIMH.

We can observe that the proportions of students reported enrolled in and graduated from nursing programs are slightly smaller than NIMH's estimate of the percentage of mental health professionals who are graduate nurses.

Finally, psychiatry residency programs in the West seem to be enrolling and graduating far too few psychiatrists to meet public sector needs as reported to NIMH.

When workforce data are examined for state hospitals and CMHCs separately, the proportions of students being graduated more nearly approximates the proportions of the different disciplines utilized in community facilities rather than state hospitals. In other words, the higher proportions of social workers and psychologists being trained in the western states may be in response to the need for such staff in community mental health facilities.

This tendency to depend more on social worker and psychologist professionals than psychiatrists and nurses is accentuated, in both hospitals and CMHCs, in the WICHE data on utilization of professionals in western state hospitals and CMHCs. The wide discrepancy between percent of psychiatrists utilized and the percent currently being trained narrows considerably when data from western state CMHCs is examined. Thirteen percent of the graduate core discipline workforce in western CMHCs are psychiatrists compared to 8.2 percent of all graduate mental health professionals being trained. Apparently community facilities in the West have already accommodated to the severe shortage of psychiatrists.

Supply by State

Table 9 shows by state the average and total number of students enrolled and graduated and the range of students enrolled and graduated. As this table indicates, the average enrollment varies considerably for different states. As might be expected, the state with the largest total enrollment is California, which has more than half the total enrollment of programs which answered Question 7. The three states providing the mental health workforce with the largest numbers of mental health professionals, both in terms of total number of students enrolled and total number of students graduated, were (largest first in descending order) California, Washington, and Colorado. The states providing the smallest number of students enrolled and graduated are Alaska and Nevada. Table 9 also shows that five of the western states each graduated fewer than 25 mental health professionals for the 1983-84 academic year.

Nursing and Social Work Programs With and Without Mental Health Specializations

Question 13 asked whether nursing and social work programs had a specialization or track with a mental health or psychiatric emphasis and requested the number of students currently enrolled in such a track.

Seven of the eleven social work programs answering this question, or 63.6 percent, reported having a mental health specialization or track. For nursing programs, eleven of the twenty programs answering Question 13, or 55.0 percent, reported having a mental health and/or psychiatric emphasis specialization or track.

Unfortunately, it was not possible to obtain the average percent of nursing or social work students enrolled in a mental health specialization or track because some of the programs reporting having a mental health specialization either did not report their total enrollment or only reported students enrolled in the mental health specialization. Nationally, about 16 percent of the full-time enrollments of nurses in master's programs are in a psychiatric-mental health specialization (National League for Nursing, 1983). It is estimated that about 25 percent of all social workers are primarily involved in the field of mental health (Jenkins & Turk, 1983).

Students in Field Placement

Use of Field Placement by the Different Disciplines

Question 8 asked programs to report the number of master's and Ph.D. students in field placement. The total number of students in field placement ranged from 0 to 247. The number and percent of master's and of Ph.D. students in placement by type of program is shown in Table 10. On average, social work programs reported the largest percent of master's students in placement (58.1%) followed by psychology (21.5%), and nursing (20.5%). For Ph.D. students, the largest percentage of students in placement was for psychology (67.2%), followed by nursing (14.3%), and social work (3.4%).

In raw numbers of students placed, social work programs made the largest contribution to the total number of master's students placed and psychology programs placed the largest number of Ph.D. students.

Field Placements in State-Supported Mental Health Facilities

Question 10 asked respondents to estimate the number of graduate students or psychiatric residents placed in state-supported mental health facilities. Table 11 shows the percent of each discipline's total placements in state hospitals and in other state supported mental health facilities. Nursing and social work programs with and without a mental health specialization or track are shown separately and appear in parentheses. Several interesting findings emerge from Table 11.

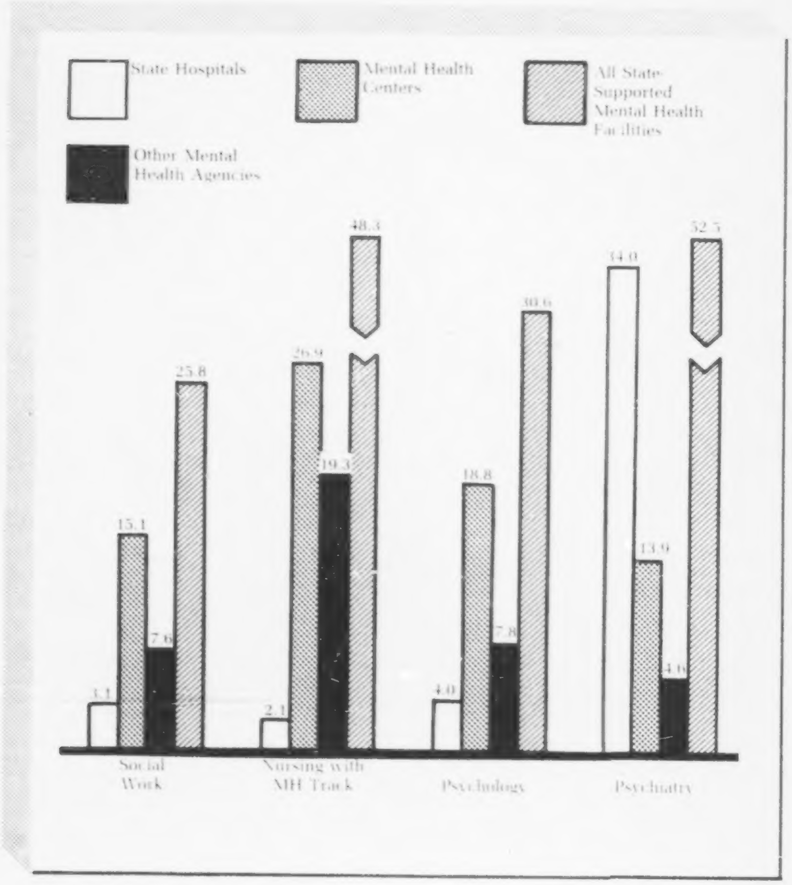
Examining placements in all state-supported mental health facilities regardless of type of facility (and ignoring the breakdown of nursing and social work programs with and without mental health specializations), we find that psychiatry has the highest percentage of placements in state supported mental health facilities (52.5%), followed by nursing (35.3%), psychology (30.6%), and finally, social work (25.8%). The high percentage of nursing placements, above psychology and social work, rises even higher (to 48.3%) approaching that of psychiatry, when only nursing programs with a mental health specialization are considered. Finally, the percentage of social work's placements in state supported mental health agencies rises to 31%, becoming equal to that of psychology's percentage, when social work programs with a mental health track/specialization are analyzed by themselves.

Looking at placements by type of agency, for disciplines not shown in parentheses in Table 11, we see that psychiatry has the highest percentage of placements in state hospitals and the lowest percentage of placements in mental health centers and in other mental health agencies, while psychology has the largest proportion of placements in mental health centers, and nursing has the largest proportion of placements in other mental health agencies.

When programs with and without mental health specializations or tracks are examined separately for social work and nursing programs, we find that those programs with a mental health track have substantially more placements in mental health centers and in other mental health agencies than do those without a mental health specialization or track. For state hospital placements, however, nursing and social work programs without a mental health specialization or track have a greater proportion of placements in these facilities than do corresponding programs with a mental health specialization or track.

Another noteworthy finding appearing in Table 11 is the very high percentage of placements in mental health centers (26.9%) and in other mental health agencies (19.3%) by nursing programs with mental health specializations or tracks. These values actually exceed the corresponding percentages placed in these agencies by each of the other three disciplines. Exhibit 2 compares graphically selected highlights from Table 11.

Exhibit 2
Percent of Field Placements by Type of Placement



Graduates Employed in State-Supported Mental Health Facilities

Question 12 asked programs to report the percentage of their graduates who were employed in state-supported mental health agencies. More than half of program respondents were able to provide information on where their graduates are employed. Table 12 shows the average percent of graduates employed in state supported mental health agencies by program discipline. An average of 27.5 percent of graduates of the 54 programs which answered this question are employed in state mental health agencies. This percentage was about the same for the four different types of programs, being 22.5 percent for social work, 24.3 percent for nursing, 28.9 percent for psychology and 23.3 percent for psychiatry. However, the interpretation of this finding may be quite different for the different disciplines. For example, the 75+ percent of psychiatrist graduates not working in state mental health are probably working in private facilities or private practice, whereas the 75+ percent of social workers not working in state mental health are more apt to be working in public social service or other non-mental health agencies.

IV. Graduate Preparation for Service to Priority Client Groups

In current years, state mental health agencies have targeted limited state dollars on services to client populations which are the most severely and chronically disabled and which historically have been unserved or underserved by both the public and private sectors.

- The Chronically Mentally Ill (CMI)
- Severely Disturbed Children and Youth
- The Elderly
- Racial and Ethnic Minorities
- Mentally Ill Offenders (MIO)
- Alcohol/Drug Abusers

In order to devote attention to the needs of these populations in a time of scarce resources, it has been necessary for states to redirect money and staff time from other services toward these client groups. These changes in the priorities of state mental health programs have led many planners, direct service providers, and educators to consider the extent to which higher education is preparing graduates to serve these populations.

In order to assess how programs are preparing graduates to serve these groups, the survey obtained two types of information. One group of questions asked for the program's perception as to how well it is preparing graduates to work with these state priority client groups, whether this is an appropriate role or priority for the program, and whether the program and its faculty are supportive of giving more attention to this area. Another portion of the questionnaire asked for the program's course work and field experience specifically related to each client group; whether it is required; and the proportion of students exposed to these courses and experience.

The survey also asked respondents to identify barriers and problems preventing programs from giving more attention to preparation to serve priority client populations and to provide suggestions for increasing the competencies of graduates to serve these populations.

In considering the results discussed below, it should be remembered that nursing and social work differ from psychology and psychiatry in the emphasis given to mental health concerns. Nursing and social work programs prepare students for service in a variety of settings and the psychiatric or mental health track is only one option within the social work or nursing curriculum.

Because of these differences in emphases, values appearing in the figures and tables of this section are often broken down separately for social work and nursing programs with and without a mental health specialization or track.

Chapter Highlights

- Graduate level mental health education programs in the western states believe that--depending on the discipline--they are doing a fair to good or good to excellent job of preparing their graduates to serve state priority client populations, except for mentally ill offenders for which the average rating of all disciplines is poor to fair.
- On the average preparation of students to serve minority clients is rated higher than other client groups, but there is considerable variation among the disciplines about which client groups their students are better prepared to serve.
- Psychiatry programs report the greatest amount of interest and effort in training students to work with CMI populations followed by elderly and ethnic minority clients. Psychology places greater emphasis on serving minorities and substance abusers. Nursing programs as a whole emphasize elderly clients and substance abusers; however, nursing programs with psychiatric specializations also emphasize CMI and minority clients. Social work programs emphasize training for services to ethnic minorities, children and youth, and CMI. Social work programs with a mental health specialization also emphasize services to elderly clients.
- Disciplines vary in how students are prepared. Social work tends to have courses or field experience available to prepare students to work with all client groups; however, most are electives and a comparatively small proportion of students are trained in each specialty. On the other hand, psychiatry tends to have fewer specialized courses or field experiences available, but also tends to require residents to take these specialized courses. This difference results in a much higher proportion of psychiatry residents being trained in areas related to state priority client groups than social work graduates. Nursing programs with psychiatric specializations tend to resemble psychiatry programs in

requiring certain courses and field experience for working with CMI, minority clients and drug and alcohol abusers. Psychology programs resemble social work in making specialized courses available as electives rather than requirements.

- Education program respondents rate the quality of preparation of graduates in their programs to serve chronically mentally ill clients at halfway between "fair" and "good". Highest ratings are by psychiatry programs and lowest by psychology programs. All disciplines except psychology rate preparation to serve CMI as a medium to high priority role for their programs. Social work followed by nursing programs with psychiatric specializations and psychiatry also perceive medium to high interest among their programs and faculty in giving more attention to CMI training. Two thirds of respondent programs have one or more courses or field experience specifically related to CMI clients and almost half of these programs require their graduates to complete the course or field experience.

- Preparation for working with mentally ill offenders is ranked lowest by all disciplines. Among the disciplines, psychology ranks its preparation to serve MIOs slightly higher than do other disciplines. Social work programs see it as their role to prepare graduates to serve MIOs and have more interest among their programs and faculty in giving increased attention to MIOs than do other disciplines.

- Education programs in the West believe their graduates are somewhat better prepared to serve racial/ethnic minority clients than they are to serve other state priority client populations. All disciplines see it as a moderate to high priority role for their programs and perceive a medium to high interest among programs and faculty in giving more attention to preparing graduates to serve minorities. More than two thirds of reporting programs have courses or field experience specifically related to racial/ethnic minority clients. More than a third require that their graduates have such training.

- Current preparation to serve elderly clients is rated lower than all other client groups except MIOs. However, programs rank the role priority and interest in giving more attention to this client group as high or higher than they rank all other client groups except racial/ethnic minority clients.

- More than half of respondents list specific courses or field experience within their curricula which prepare students to serve severly disturbed children and youth, drug and alcohol abusers and elderly clients. However less than one fourth of the programs require preparation in these areas.

- The two barriers most frequently mentioned as preventing programs from giving more attention to state priority client groups were lack of time in curriculum and lack of financial support for students. Student disinterest and lack of faculty expertise are the next most frequently mentioned barriers.

- The barriers of philosophy/goals and faculty attitudes and values are identified more frequently by those programs which appear to be exerting the least amount of effort towards preparing students to serve state priority client populations.

- About half of the programs responding provided suggestions to improve competencies of their graduates to serve priority client groups.

How Program Effort Was Measured

An effort/preparation summary score was constructed to measure the amount of effort or energy invested by a program in graduate preparation for each priority client group. Programs' scores on these effort/preparation summary composites were obtained by combining responses on questions 14, 15, 16, and 18.

Question 14 asked respondents how well they believed their program was preparing graduates to work with each priority client group. Respondents rated the quality of preparation on a four-point scale ranging from 1 (poor) to 4 (excellent).

Question 15 asked to what extent respondents saw it as their program's role to prepare graduates to work with each of these priority client groups. Respondents rated their program's perceived role/priority on a four-point scale ranging from 1 (not our role) to 4 (high priority).

Question 16 asked respondents to rate their program's and faculty's level of interest in giving more attention to preparing graduates to serve each of the state mental health priority client groups. Respondents rated on a four-point scale from 1 (none) to 4 (high).

Question 18 asked respondents to indicate, for each client population: 1) any special courses or field experience available through their programs for preparing graduates to work with these populations; 2) whether the course or field experience was required; and 3) the approximate percentage of students who received the specialized training.

Respondents' ratings on quality of preparation, program's role or priority, and level of interest were simply summed, and if a response was missing it was replaced by the mean response for that question. Responses to question 18 entered into the effort/preparation summary score in the following manner. If the program had coursework and/or experience relating to the client group in question, two points were added to the score and two more points were added if the course/experience was required. Programs received additional points depending on the percentage of students trained in this course or experience: zero points for missing or zero percent trained; one point for 1 to 25 percent trained, two points for 26 to 50 percent trained, three points for 51 to 75 percent trained and four points for 76 to 100 percent trained. Programs with missing data on all the components of a summary score were deleted from all analyses involving scores on this summary score. Several analyses described in Appendix D were performed in order to examine the validity of these effort/preparation summary scores.

Preparation of Graduates by Priority Client Population

How much effort is being expended by programs to prepare graduates to serve each of the public mental health priority client groups? In this section we examine each priority client population and ask which disciplines devote the greatest and the least amount of effort in preparing graduates to work with that client population.

Summary

Figure 1 shows, for each discipline, average scores on the effort/preparation summary score by priority client group. This figure highlights and summarizes the findings discussed in more detail in the six sections which appear below.

The disciplines devoting the greatest amount of attention to preparing graduates for CMI populations appear to be psychiatry and social work. Severely disturbed children and youth client populations receive the most attention from social work and from psychology programs. These two client populations appear to be where there are the greatest differences among disciplines, as evidenced by the wide spread of the disciplines in these two portions of Figure 1A.

The four disciplines differ much less in their concern for preparing graduates for treating elderly clients, with social work, psychiatry, and nursing programs scoring about the same and psychology programs having a somewhat lower average effort/preparation summary score.

All disciplines showed a relatively high interest in ethnic minorities, with social work programs showing the most interest, followed by psychology, psychiatry, and finally nursing.

MIO populations received little interest, with all of the disciplines having similarly low average effort/preparation summary scores for this client population. The discipline expressing the least amount of interest in MIOs was nursing, with the other three disciplines expressing only slightly more interest.

Finally, preparing graduates to serve substance abuser populations appears to receive the greatest amount of interest from social work programs, followed by psychiatry, psychology, and then nursing.

Preparation of Graduates for Working With CMI

Table 13 details by discipline academic programs' preparation of students for working with the chronically mentally ill on each of seven measures.

Quality of Preparation. On a four-point scale moving from poor (1) to excellent (4), the average rating for the eight psychiatry residency programs which answered this question was 3.6. The other three disciplines rated their preparation for students to serve the chronically mentally ill considerably lower--2.6 for eleven reporting social work programs, 2.5 for 18 nursing programs, and 2.3 for 54 psychology programs.

Role or Priority. Psychiatry indicated the highest priority assigned to preparation for work with CMI (3.6) followed by social work (3.4) nursing (3.0) and psychology (2.5).

Interest in Improvement. Social work indicated the highest level of interest in increasing attention to preparation of graduates for work with the CMI population (3.4) followed by psychiatry (3.1), nursing (2.8) and psychology (2.5).

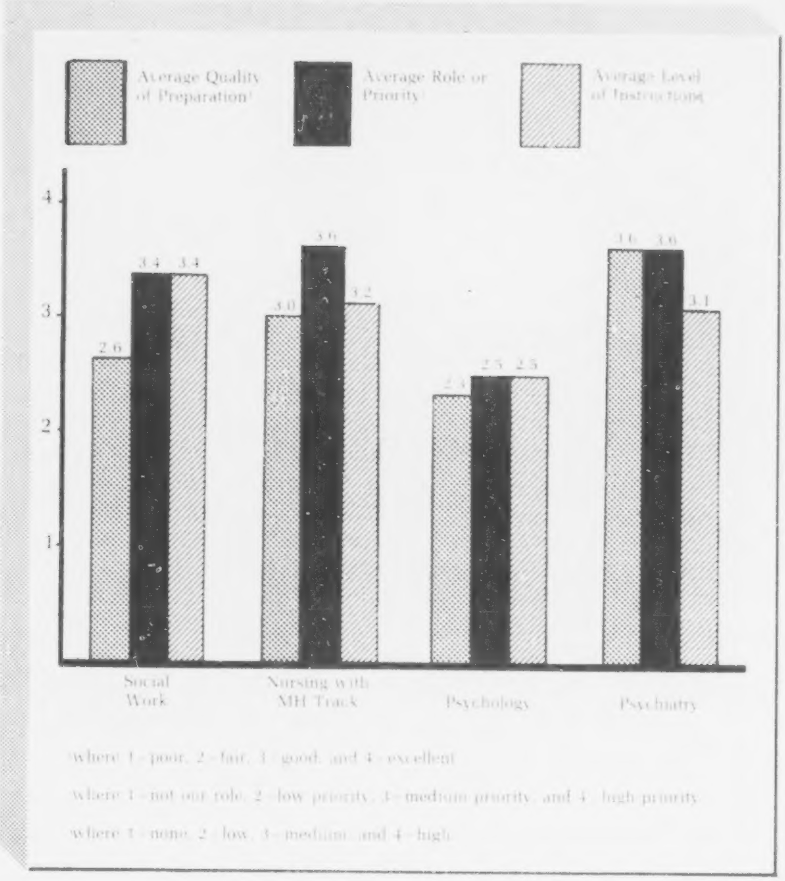
Programs Offering Courses/Experience. Of the social work programs reporting on this question, 90.9 percent have some course or field experience available; of the reporting psychiatry programs 75 percent offer some course or experience; for psychology and nursing the figures are 67.2 percent and 55.0 percent respectively.

Programs Requiring Course/Experience. Of the eight psychiatry residency programs reporting 75 percent required some course or field experience in working with the CMI. This figure is followed by psychology (43.6 percent) nursing (35.0 percent) and social work (18.1 percent).

Students Receiving Special Training. Respondents who indicated that their programs offer one or more courses or field experience related to serving chronically mentally ill adults were asked to indicate the approximate percentage of their students who receive such specialized training. The data show that the six psychiatry residency programs which provided this data reported training all of their students in this area; nine nursing programs reported training 77.7 percent of their students; thirty-three psychology programs averaged 73.7 percent of their students trained and eight social work programs responding averaged 22.7 percent.

CMI Preparation Summary Score. Psychiatry's summary score is 13.3 for the eight programs reporting. This followed by social work (11.9), nursing (10.0) and psychology (9.8). Exhibit 3 below presents graphically selected highlights from Table 13.

Exhibit 3
Graduate Preparation for Working With CMI by Discipline



Preparation of Graduates for Working With Severely Disturbed Children and Youth

Table 14 presents data on preparation of students to work with severely disturbed children and youth.

Quality of Preparation. On a scale from 1(poor) to 4(excellent), the social work programs which responded to this item rated themselves an average of 2.9; psychology programs rated themselves 2.6; psychiatry residency programs' self rating was 2.5; nursing's average was 1.9.

Role or Priority. The average priority given to preparation of students for work with severely disturbed children and youth closely corresponds to the programs' self rankings of quality of preparation. Social work programs rated themselves 3.3 on a scale from 1 (not our role) to 4 (high priority). Psychiatry and psychology rankings were both 3.0, while nursing programs as a group gave the lowest priority to serving children and youth with a ranking of 2.3.

Interest in Improvement. Social work indicated the highest level of interest in increasing attention to preparation of graduates to work with children and youth (3.6); followed by psychology (3.1); and nursing and psychiatry, which rated themselves 2.6 and 2.7, respectively.

Programs Offering Courses/Experiences. Of the eleven social work programs responding to the item, 81.8 percent offer such courses or experience. Of eight psychiatry programs answering the item, 75.0 percent have such offerings. Of 55 responding psychology programs, such courses or field experience are offered by 70.9 percent, while 35.0 percent of the 20 reporting nursing programs have such offerings.

Programs Requiring Courses/Experience. Fifty percent of the psychiatry residency programs responding to this item indicated they required such courses or experience. In psychology 29.0 percent of the reporting programs required some course or field experience in this area. For nursing programs 10.0 percent required some field experience or course work in serving severely disturbed children and youth, while for social work programs only 9.0 percent required such course work or field experience.

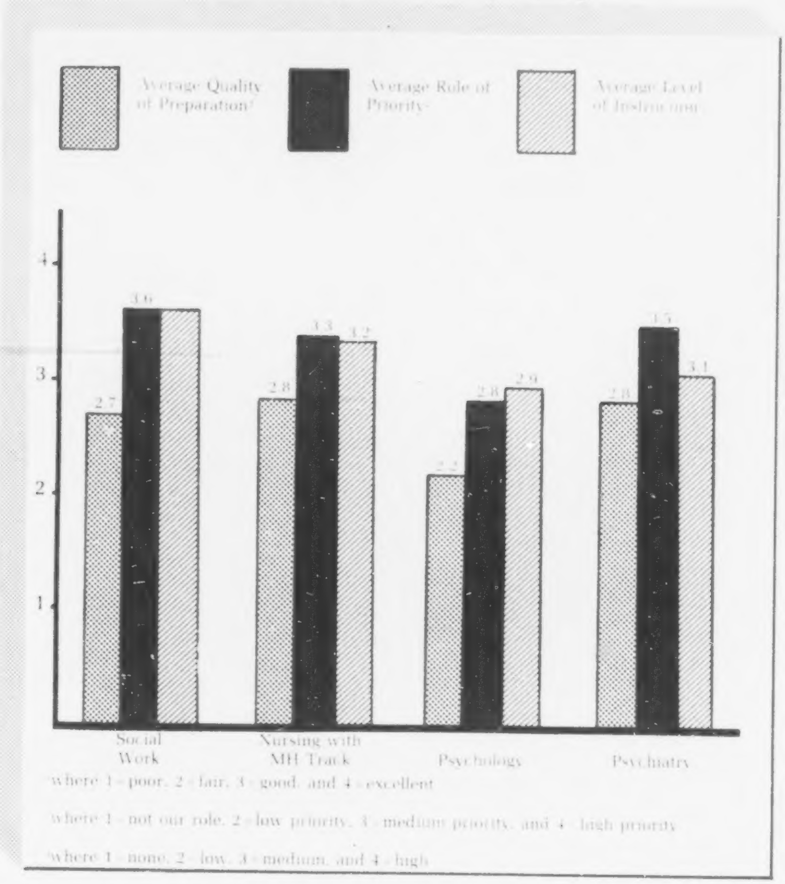
Students Receiving Special Training. Respondents who indicated that their programs offer one or more courses or field experiences related to serving severely disturbed children and youth were asked to indicate the approximate percentage of their students who receive such specialized training. The five psychiatry programs which answered this item indicated that an average of 82.0 percent of their students received training in this area. Thirty-three psychology programs responding to the item indicated an average of 59.0 percent of their students received such training. Four nursing programs which responded indicated that an average of 38.7 percent of their students are trained to work with children and youth, while the seven responding social work programs averaged 30.1 percent of their students in such training.

Children and Youth Preparation Summary Score. Social work received the highest summary score for the four basic disciplines (12.3) followed by psychiatry (10.9), psychology (11.0) and nursing (7.8).

Preparation of Graduates for Working With Elderly Populations

Table 15 reports by discipline data regarding preparation of graduates for working with the elderly. Exhibit 4 below portrays graphically selected highlights from Table 15.

Exhibit 4
Graduate Preparation for Working With Elderly Populations by Discipline



[1] where 1 = poor, 2 = fair, 3 = good, and 4 = excellent

[2] where 1 = not our role, 2 = low priority, 3 = medium priority, and 4 = high priority

[3] where 1 = none, 2 = low, 3 = medium, and 4 = high

Quality of Preparation. Psychiatry (2.8), social work (2.7) and nursing (2.7) gave themselves very similar ratings with regard to the quality of graduate preparation for working with the elderly population. Psychology's self-rating was somewhat lower (2.2).

Role or Priority. Social work, psychiatry and nursing with ratings of 3.6, 3.5 and 3.3 respectively, consider this population as a somewhat higher priority than did psychology, with an average priority rating of 2.8.

Interest in Improvement. Social work showed the greatest interest in giving more attention to elderly concerns in their curriculum, with an average rating of 3.6. This was followed by nursing (3.3), psychiatry (3.1) and psychology (2.9).

Programs Offering Courses/Experience. Of the twenty nursing programs reporting on this item, 65.0 percent had a specialized course work or field experience available. Of the eleven social work programs providing data, 63.6 percent had available such courses or experience. Fifty-five psychology programs reported, with 56.3 percent offering some course work or field experience in working with the elderly. Fifty percent of the eight psychiatry programs which provided data on this item said they offered specialized course work or experience.

Programs Requiring Courses/Experience. Of eight psychiatry residencies reporting, 37.5 percent require courses or field experience with the elderly. Of 20 nursing programs reporting 15 percent have such a requirement. Of 55 psychology programs reporting, course or field experience with the elderly is required by only 5.4 percent. None of the eleven social work programs required preparation for work with the elderly.

Students Receiving Special Training. The four psychiatry programs reporting indicated the highest percentage of students receiving some special training (82.5 percent). The nine nursing programs reporting indicated that they trained approximately 36.1 percent of their students in working with this special population. Twenty-six psychology programs reported training about 27.1 percent of their students in this specialty area, while five social work programs averaged training 19.2 percent of their graduates.

Elderly Preparation Summary Score. Social work ranked highest on this score with an average of 11.8, followed by psychiatry 11.4, nursing (11.4), and psychology (9.7).

Preparation of Graduates for Working With Ethnic Minority Populations

Table 16 presents data by discipline regarding preparation of graduates to work with racial and ethnic minority populations.

Quality of Preparation. The four basic disciplines rated themselves quite similarly on this item, with social work averaging 2.9, psychology 2.8, nursing, and psychiatry 2.6. The mean rating on quality of preparation across 89 responding programs in all four basic disciplines was 2.7.

Role or Priority. Social work programs averaged 3.7, psychology 3.3, psychiatry 3.1, and nursing 2.9. Of the 93 programs in all four disciplines reporting on this question, the mean priority rating was 3.2.

Interest in Improvement. Social work programs showed the greatest interest in giving more attention to this area, with a 3.6 average on a scale from 1 (no interest) to 4 (high interest). Psychology (3.2) and nursing (2.8) showed a medium range of interest in giving more attention to this priority population, while psychiatry's interest was rated considerably lower (2.2). The mean level of interest across 92 responding programs in the four basic mental health disciplines in giving increased attention to preparing students for work with racial/ethnic minority populations was 3.1.

Programs Offering Courses/Experience. Respondents who indicated that their programs offer one or more courses or field experience related to serving minorities were asked to indicate the approximate percentage of their students who receive such specialized training. In social work 81.8 percent of the eleven programs responding to this item offer such course work or field experience; in psychology 72.7 percent of 55 programs; in psychiatry 62.5 percent of eight programs; and in nursing 50.0 percent of twenty programs. Of 94 programs in the four basic disciplines responding to this item, 68.0 percent offer some course work or field experience in working with racial/ethnic minorities.

Programs Requiring Courses/Experience. In psychiatry 50.0 percent of programs reporting on this item require such work, in psychology 40.0 percent, in nursing 25.0 percent, and in social work 27.2 percent. For 94 programs responding to this item across the four basic disciplines, 36.1 percent require some course work or field experience in working with racial/ethnic minorities.

Students Receiving Special Training. Five psychiatry residencies reported 90 percent of their students trained in this area; seven nursing programs reported 78.5 percent; thirty-five psychology programs reported 67.4 percent; and seven social work programs reported 26.4 percent. For 54 programs in the four basic disciplines which responded to this item, the percent of students trained in working with ethnic minorities was 65.6 percent.

Racial/Ethnic Preparation Summary Score. Social work received the highest summary score (12.3), followed by psychology (11.8), psychiatry (10.6), and nursing 9.9). Of 94 programs across the four basic disciplines the average summary score was 11.3.

Preparation of Graduates for Working With Mentally Ill Offenders

Table 17 summarizes data by discipline regarding preparation of graduates for working with MIO populations.

Quality of Preparation. Psychology's self-rating was highest of the four basic disciplines (2.3), followed by social work (1.8) nursing (1.6), and psychiatry (1.5). The mean score for 89 programs across the four basic disciplines was 1.9.

Role or Priority. Social work programs ranked themselves 2.5, psychology 2.3, nursing 2.1, and psychiatry 2.0. The mean priority level across 94 programs in the four basic disciplines which responded to this question was 2.2.

Interest in Improvement. Social work programs indicated the greatest interest in improvement in this area, rating themselves 2.6. Psychology's interest rating was 2.3, psychiatry 2.1, and nursing 1.9. The mean interest rating for 90 programs responding to this item across the four basic disciplines was 2.3.

Programs Offering Courses or Experience. Of the psychiatry programs which responded 62.5 percent offered some course or field experience. This was followed by social work (45.4 percent), psychology (43.6 percent) and nursing (30.0 percent). Of the 94 programs across the four basic disciplines which responded to this item, 42.5 indicated they offer some course work or experience in working with MIOs.

Programs Requiring Courses/Experience. Twenty-five percent of responding psychiatry programs require such work, as do 12.7 percent of psychology programs, 9.0 percent of social work programs and 0.0 percent of nursing programs. Of the 94 programs across the four basic disciplines which responded to this item, 10.6 percent require course work or field experience in working with MIOs.

Students Receiving Special Training. The four psychiatry programs responding to this item trained the highest percentage of students (57.5 percent) followed by the twenty-one psychology programs (33.8 percent), two nursing (30.0 percent), and three social work (14.3 percent). The mean percent of students trained for working with MIOs across 30 programs responding to this question was 34.7 percent.

MIO Preparation Summary Score. Psychology's summary score was 8.1, social work 7.9, psychiatry 7.5, and nursing 6.2. The summary score for 94 respondents across the four basic disciplines was 7.6.

Preparation of Graduates for Working With Alcohol and Drug Abusers

Table 18 summarizes data concerning preparation of graduates to work with alcohol and drug abuse populations.

Quality of Preparation. Social work programs' self-ratings ranked highest (2.9) followed by psychiatry and psychology (both 2.5) and nursing (2.3). The mean self-rating for 89 programs which responded to this question across the four basic disciplines was 2.5.

Role or Priority. Average scores for the four disciplines varied little. Psychiatry averaged 3.2, social work and psychology 3.0, and nursing 2.8. The mean score for 93 programs in the four basic disciplines was 3.0.

Interest in Improvement. Social work programs ranked 3.1, psychology 3.0, nursing 2.6, and psychiatry 2.7. For 91 programs in the four basic disciplines which responded to this question the mean ranking was 2.9.

Programs Offering Courses/Experience. Of the social work programs which responded to this item, 90.9 percent offered students such opportunities. Figures for the other disciplines were not as high--62.5 percent for psychiatry, 60.0 percent for psychology, and 35.0 percent for nursing. For all 94 basic discipline programs which answered this item, 58.5 percent offered course work or field experience related to serving alcohol and drug abusers.

Programs Requiring Courses/Experience. Of the psychiatry programs responding, 37.5 percent required such work, while the figures for the other disciplines were 15.0 percent for nursing, 12.7 percent for psychology, and 9 percent for social work. The mean figure for 94 programs in the four basic disciplines which responded to this item was 14.8 percent.

Students Receiving Special Training. The five nursing programs which answered this item train 88.0 percent of their students in this area; the five psychiatry programs reporting 70.0 percent; the thirty psychology programs reporting train 37.8 percent; and the seven social work programs 34.1 percent. The average percent of students trained by 47 programs across the four basic disciplines was 46.0 percent.

Alcohol/Drug Abuse Summary Score. Social work programs scored the highest on this measure summary with a score of 11.8, while psychiatry scored 10.5, psychology 10.5 and nursing 8.8. The overall score for 94 basic discipline programs responding to this item was 10.3.

Preparation of Graduates by Program Discipline: Discipline Profiles

How do the different disciplines compare in the amount of effort they devote to preparing graduates to work with each of the mental health priority client groups? In this section, profiles of effort/preparation summary scores are examined separately for each discipline and each discipline is characterized in terms of the effort devoted to training graduates to deal with the various client populations.

Average profiles on the seven individual measures of graduate preparation for service to priority client groups for all disciplines combined are shown in Figure 2 and for each discipline separately in Figures 3 through 8. Because programs' average role priority and level of interest scores were very similar (usually differing less than 0.3 on a scale of one to four) these two measures appear as one line in each of the discipline profile figures described below.

General Characteristics of All Programs

Figure 2 shows the average scores of all disciplines taken together. This figure has four major features, which also appear to a greater or lesser extent in the profiles for each of the individual disciplines.

First, programs' scores on the measures of quality of preparation, program role priority, and level of interest tend to be found together in all seven of the profile figures discussed in this section. These three measures are, in fact, highly correlated (See Appendix D), meaning that programs which have a high score on one of these measures also tend to have high scores on each of the other two measures. The three measures appear to differ very little for different client populations and appear on the bottom of Figure 1 as two relatively straight lines with slight dips for MIO and for elderly populations.

Secondly, the two dips, or low spots, occurring for elderly and MIO populations appear in all of the lines shown in Figure

1, indicating that programs' scores for all measures were lowest for these two populations. The dip occurring in Figure 1 at MIO client populations occurs in each of the profiles for individual disciplines. Indeed, for all disciplines, MIOs receive the least attention of all the client populations. The low spot occurring in Figure 1 for elderly populations occurs in only some of the profiles of individual disciplines, namely for social work programs not offering a mental health specialization, psychology, and to some extent, psychiatry programs.

Thirdly, all the lines in Figure 1 have peaks at ethnic minority and alcohol/drug abuser populations, indicating that these two populations scored highest on all measures. The peak at ethnic minority populations occurs in the profiles of all programs except those for nursing programs not offering mental health specialization. The disciplines of programs showing an interest in substance abuser client populations are social work, nursing programs with mental health specialization and, to a lesser extent, psychology and psychiatry programs.

Finally, the general shape of the functions for individual measures is reflected in the summary score function shown on the top line of Figure 1. This result suggests that the effort/preparation summary score does, indeed, capture the major features of the profiles from which it is made.

Social Work Programs

Figures 3 and 4 summarize the average responses of social work programs with and without mental health specializations to questions pertaining to graduate preparation for service to priority client groups. Social work programs appear to devote a great deal of effort towards preparing graduates to work with ethnic minorities, severely disturbed children and youth, the elderly, and the CMI, while investing only slightly less effort in preparing graduates to work with alcohol/drug abusers. MIOs receive the least attention of social work programs and indeed of all the disciplines.

The response profiles of social work programs with and without mental health specialization do not differ a great deal, their basic patterns being about the same except that the percent of social work programs offering courses and/or experience for working with elderly populations is much less for social work programs without mental health specialization.

Nursing Programs

Figures 5 and 6 profile responses from nursing programs with and without mental health specializations, respectively. The response patterns of these two types of nursing programs differ dramatically. The profiles of nursing programs without mental health specialization are rather flat, with a slight emphasis on preparing graduates to work with elderly clients and substance abusers. Nursing programs offering mental health specialization have a much greater interest in preparing graduates to work with the CMI, severely disturbed children/youth, and ethnic minorities, as well as in preparing them to treat the elderly and substance abusers.

Psychology Programs

Psychology programs' average scores on the seven graduate preparation measures are shown in Figure 7. Psychology's profile resembles closely the profile obtained from the average scores of all programs, with its highest priority being preparing students to serve minorities and substance abusers.

Psychiatry Programs

The average scores of the psychiatry programs responding to this survey are shown in Figure 8. Psychiatry's profile differs from the profiles of the other disciplines in two major ways. First, the mean level of the lines in psychiatry's figure are somewhat higher than the corresponding lines for any of the other disciplines, except for the measures of role priority, level of interest, and quality of preparation, which are about the same for all disciplines. Secondly, psychiatry programs report that the greatest amount of interest and effort is directed towards training students to work with CMI populations, with elderly and ethnic minority populations tying for second place.

Achievement of Priority Roles

How well do the basic discipline programs believe they are doing in relation to their own perceived priority roles with regard to serving state service system target populations? In order to answer this question, programs' self-reported quality of preparation ratings were compared with programs' role priority ratings. For each special population, programs' quality of preparation scores were divided by their role priority ratings and then multiplied by 100. The resulting percentage score reflects how well a program appears to be meeting its own goals. Similarly high scores on this measure can be produced by either high quality of preparation or low role priority ratings and the score can exceed 100 percent when programs occasionally rate their preparation highly, but give their role priority a low rating. Table 19 summarizes these scores by discipline and special client group.

The first column of Table 19 indicates how well programs think they are accomplishing their own mission with regard to serving CMI. Psychiatry's rating is 100, while psychology scored 91.1, nursing 87.9, and social work 78.7. The mean CMI goal achievement rating for 90 programs in the four disciplines is 89.8.

Programs did not differ as much in how well they were meeting their goals of preparing students to serve severely disturbed children and youth. Psychiatry and psychology both scored 88.0. Scores for social work and nursing were 85.6 and 78.2 respectively.

There was also little variation among disciplines in how well programs were meeting their self-rated priorities in preparing students to serve the elderly. Nursing received the highest rating with 81.1. Ratings for the other disciplines were psychology 80.4, psychiatry 79.8, and social work 75.0. The mean rating for 89 programs was 79.8. Overall, programs scored lower on meeting their goals for this client group than for any of the other client groups.

Programs fared somewhat better in meeting their own priorities of preparing students to serve racial/ethnic minorities, but scores were still rather low relative to scores for other client groups. Nursing scored highest in this area (89.7), followed by psychology (85.0) psychiatry (82.2) and social work (78.0).

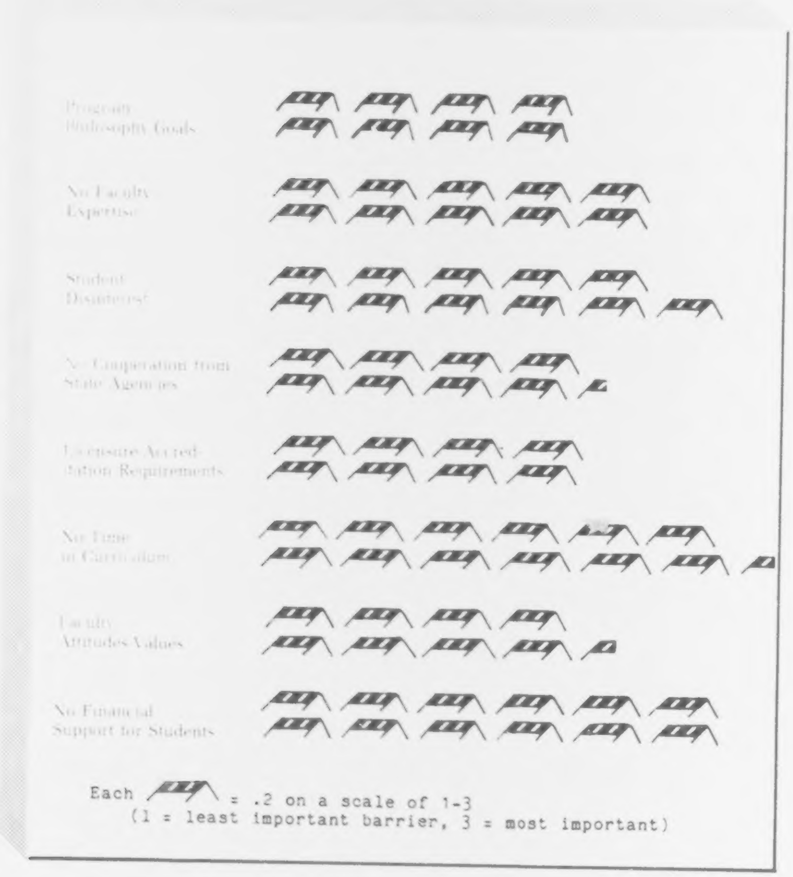
Looking at how well the disciplines are meeting their stated goals and priorities with regard to preparing students to work with MIOs, psychology scored highest in this area (95.9), while the other three disciplines earned scores considerably lower--79.5 for social work, 78.5 for psychiatry, and 77.3 for nursing. The mean score for 89 programs in the four disciplines was 88.7.

The last column in Table 19 shows how well the mental health disciplines appear to be meeting their goals with regard to preparing graduates to work with alcohol and drug abusers. Social work ranks highest (97.7), followed by psychology (84.2) nursing (83.3) and psychiatry (78.5). For 88 basic discipline programs the mean rating was 85.3.

Barriers: Question 17

Question 17 requested respondents to rate the severity of a number of possible types of problems or barriers which might prevent programs from giving more attention to state priority client groups. Ratings ranged from 1 (not a barrier) to 3 (major barrier) and a "don't know" category was included. Data were not collected by client group. Table 20 presents average ratings from this item by type of barrier and program discipline. Exhibit 5 below portrays symbolically the ratings by type of barrier for all disciplines taken together.

Exhibit 5
Barriers Preventing Programs from Giving More Attention to Priority Client Groups



Average Ratings on Barriers

For most barriers, these average rating values differ little across disciplines. Lack of time in the curriculum was perceived as the greatest barrier by nursing and psychology programs, while it was seen as the second most significant barrier by psychiatry and social work. Lack of financial support for students was seen as the greatest barrier by psychiatry and social work and was ranked second by psychology and third by nursing. Student disinterest was seen as the second major barrier by nursing programs and was, on the average, considered a minor barrier by the other three disciplines. Lack of faculty expertise was ranked at least 2.0 (minor barrier) by all disciplines except psychiatry, which ranked it 1.8.

Across all disciplines program philosophy and goals, faculty attitudes and values, licensure and accreditation requirements and lack of cooperation from state agencies tended to be rated low as barriers to giving more attention to state priority client groups. Only psychiatry rated any of these barriers higher than 2.0, giving a 2.1 to lack of cooperation from state agencies.

Which Barriers are Related to Effort/Preparation Scores?

Another way to examine these data is to look at the relationship between ratings of the importance of each of the barriers and programs' scores on the effort/preparation composite scores. If a barrier is interfering in an important way with programs' effort/preparation scores, then programs with *high* ratings on that barrier should tend to have *low* effort/preparation composite scores and programs with *low* ratings on that barrier should tend to have *high* effort/preparation scores.

This principle is illustrated in Table 21, which shows average ratings of the importance of problems or barriers for programs having high, medium, and low CMI effort/preparation scores. Interestingly, program philosophy/goals, one of the bariers receiving the lowest average overall rating, turns out to be the most important barrier for predicting effort/preparation composite scores, as evidenced by programs having low CMI effort/preparation scores rating this barrier as relatively important (1.8) and programs having high CMI preparation scores rating this barrier as less important (1.2).

These relationships between barriers and effort/preparation scores can be measured statistically. Table 22 shows the correlations between each of the problem/barrier measures in question 17 and the effort/preparation composite measures derived from questions 14, 15, 16, and 18. This table was created in order to determine which problems or barriers were related to programs' effort/preparation composite scores. If a particular problem or barrier is important in predicting programs' effort/preparation scores, then there should be a large negative correlation between the effort/preparation score and that particular barrier. Large negative correlations mean that high scores on the effort/preparation composite score tend to go with low ratings of the importance of that barrier and that high ratings on that barrier tend to be paired with low effort/preparation scores. In other words, large negative correlations can be used to identify significant barriers that are important to preparing graduates to deal with special client populations.

Examining Table 22, we can see that the first barrier, program philosophy/goals, is strongly negatively correlated with the effort/preparation scores for all client groups except for racial/ethnic minorities. In other words, programs which rated this barrier as important tended to have low effort/preparation scores and programs which rated this barrier as unimportant tended to have high effort/preparation scores. In fact, this barrier proved to be the strongest predictor of effort/preparation scores for all client groups except for racial/ethnic minorities.

The only other large negative correlations (statistically significant at the .01 level) appearing in Table 22 occur between the expertise of faculty barrier and effort/preparation scores for MIOs and for alcohol/drug abusers and between faculty attitudes and values and effort/preparation scores for alcohol/drug abusers. Apparently, lack of faculty expertise is a significant barrier to preparation of graduates to deal with MIOs and alcohol/drug abuser populations and faculty attitudes and values is an important barrier to graduate preparation for working with alcohol/drug abusers.

Table 22 also contains a number of negative correlations of lesser magnitude (which are statistically significant at the .05 level). When all these correlations are examined together, only four barriers are found to be related to effort/preparation composite scores. These four barriers are:

1) Program philosophy/goals;
2) Expertise of faculty;
3) Lack of available time in curriculum;
4) Faculty attitudes and values.

A stepwise multiple regression analysis was performed on the correlations in Table 22 in order to determine which barriers were able to predict additional variance in effort/preparation scores over and above that predicted by the first and strongest barrier, program philosophy/goals. For all client populations except ethnic/minorities, the strongest predictor, program philosophy/goals, accounted for between 4 and 16 percent of the variation, with the next strongest barrier predicting between 3 and 5 percent of the variation. Details of this analysis are contained in Appendix E.

Which Barriers are Related to Meeting Goals in Graduate Preparation Scores?

Table 23 shows the correlations between each of the problem/barrier measures in question 17 and each of the graduate preparation/priority ratings (presented in Table 19). This table is to be interpreted in the same way as Table 22, with a large negative correlation indicating the importance of a particular barrier in predicting how well goals were met.

There are several interesting differences between Table 23 and the previous Table 22. The magnitude of the correlations in Table 23 is considerably smaller than those found in Table 22, there are more positive correlations in Table 23, and there are considerably fewer statistically significant correlations. These results may be in part due to a lower validitiy and/or reliability of the meeting goals in graduate preparation scores, although this hypothesis is difficult to test with these data.

Because there are so few statistically significant correlations in Table 23, it was not subjected to a multiple regression analysis.

Increasing Competencies to Serve Priority Client Populations

The survey attempted to elicit ideas as to what university mental health programs themselves believe is needed to increase the competencies of their graduates to serve state mental health priority client populations. Question 19 asked respondents to offer suggestions. Some fifty-three suggestions were made.

The largest category of responses (fifteen programs) suggested changes in curriculum or field experience to provide more content about or exposure to priority client populations. Specific suggestions included developing specializations with regularly scheduled and sequenced courses or specialized courses, field placements and seminars extending curriculum content; providing more clinical experience or on site training, better integration of field experience with classroom learning; creating electives; and extending the program by a year. Somewhat related to curriculum change were suggestions to improve library materials, to counsel students regarding options and electives and to give more attention to families and community. Two programs suggested cross-discipline education as a way to enrich a student's experience in dealing with different client groups. Three suggested that service providers or administrators of agencies serving these groups teach courses or collaborate in curriculum development.

A second sizeable category of responses (twelve programs) suggested expansion of student placements in state agencies (five programs) or providing student stipends for placements in state facilities (seven programs).

A third category (nine programs) suggested the need to sensitize faculty to state agencies' needs for personnel trained to work with these target populations and/or educate faculty in the knowledge and skills needed to work with these groups. Faculty attendance at workshops and inservice training conducted by state facilities for their own staff was suggested as one way to retrain faculty.

A fourth category (five programs) suggested the need for more funding to add faculty or to develop specializations or additional courses.

Two programs pointed out that training students to work with special populations would require a change in focus or reexamination of the mission of their programs.

V. Preparation of Graduates to Work in the Public Mental Health Sector

Graduates who will work in the state mental health system need some knowledge, skills, and experiences in organizational and policy areas as well as in clinical areas related to state priority client groups. Three areas of knowledge and skills were identified by the educators and service providers who assisted WICHE in preparation of the survey form. These are: 1) preparation of students for leadership, management, or policy development roles in public mental health; 2) preparation for work on an interdisciplinary team in a mental health program; and 3) knowledge about state-supported mental health system organization, goals, problems, and issues.

The survey questionnaire assessed programs' preparation of students in each of these three domains. Questions 20 through 22 asked whether programs' curricula included any special courses or field experiences relating to each of these three areas in an attempt to measure programs' preparation of students to work in the public mental health sector.

Chapter Highlights

- Slightly more than half of all respondents indicated they offer course content or field experience to prepare students for leadership, management, or policy development roles in public mental health.
- About two-thirds of all respondents indicated their programs include preparation for work on interdisciplinary mental health teams.
- Forty-five percent of respondents indicated their programs included content regarding state-supported mental health system organizational goals, problems, and issues.
- Social work programs more frequently reported course content or field experience designed to prepare students for leadership, management, or policy development roles and curriculum content on state mental health system organization, goals, and issues.

- Psychiatry programs more frequently reported course content or field experience designed to prepare students to work on an interdisciplinary team.

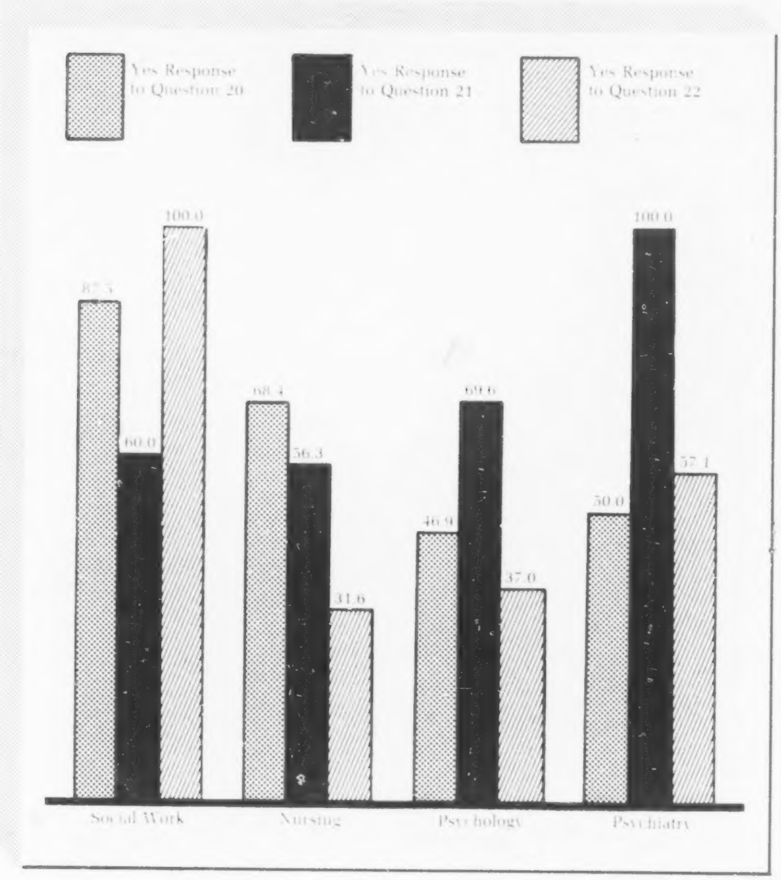
- More than half of the social work programs listed student research or studies which would be useful to state mental health providers or administrators; less than one-fourth of psychiatry programs listed such studies, partly because not all psychiatry programs require their residents to conduct research or studies.

Overall Public Mental Health Preparation

Table 24 summarizes by program discipline responses to questions 20 through 22. Also contained in this table are average scores on an overall public mental health preparation summary score. This summary score is a composite of questions 20, 21, and 22. A summary score of 3 indicates a "yes" answer to all three questions and a summary score of zero means the respondent answered "no" or "not sure" to all three questions.

As can be seen in Table 24 social work, with a summary score of 2.4, compared to 2.0 for psychiatry and 1.5 for nursing and 1.5 for psychology, ranks higher than the other basic disciplines on overall preparation of students to work in the state mental health system. Exhibit 6 presents selected highlights from Table 24.

Exhibit 6
Programs' Preparation of Students to Work in Public Mental Health by Discipline



System Leadership/Management

Preparation of students for leadership, management, or policy development roles in public mental health is important because approximately half of all graduate-level core discipline professionals working in state hospitals and CMHCs had some type of management or supervisory responsibilities there (Davis and Greenhalgh, 1985). The Davis and Greenhalgh study found that 45 percent of graduate-level social workers, 49 percent of psychiatrists, 57 percent of psychologists, and 59 percent of graduate-level nurses working in CMHCs have supervisory or management responsibilities. In state hospitals 43 percent of social workers, 53 percent psychiatrists, 68 percent psychologists and 100 percent nurses with graduate degrees are supervisors or managers.

In question 20 respondents were asked whether their programs included any course content or field experience to prepare students for leadership, management or policy development roles in public mental health. Of the 84 programs responding to the question, 47 (55.9 percent) indicated they had such content or field experience. Seven of eight social work programs (87.5 percent); 13 of 19 nursing programs (68.4 percent); four of eight psychiatry residencies (50.0 percent); and 23 of 49 psychology programs (46.9 percent) reported course content or field experience in this area. Responses by state ranged from 33.3 percent of programs in two states to 100 percent of programs in three states reporting such course work or experience.

Interdisciplinary Teams

Another characteristic of service provision in the public sector is the use of interdisciplinary teams. Interdisciplinary teams in public sector mental health facilities tend not to follow the medical model of teams headed by a physician. Instead, teams may be headed by any of the mental health specialists and generally involve egalitarian relationships among all disciplines and between professionals and paraprofessionals. Therefore, it is immportant that academic programs provide knowledge and experience about other disciplines' roles and strengths, working relationships with other disciplines, and instill a degree of ease and comfort in working with other disciplines for the benefit of the patient.

Question 21 asked respondents to indicate whether their curriculum includes any course content or field experience designed to prepare students for work on an interdisciplinary team in a mental health program. Of the 80 programs responding to this question, 55 (68.8 percent) indicated that their curriculum included preparation for work on a mental health interdisciplinary team. Examining the data by discipline, all of the eight psychiatry residency programs reported such training; 32 of 46 psychology programs (69.0 percent); six of ten social work programs (60.0 percent); and nine of 16 nursing programs (56.3 percent) reported such training. States varied in the extent of such interdisciplinary training from 50 percent of programs in two states to 100 percent of programs in three states.

State System Goals and Issues

As leaders and as clinicians, basic discipline professionals in state-funded mental health programs are faced with somewhat different clinical, organizational, and policy problems and issues than those entering private practice or employment in private facilities. These problems and issues of course include a clinical emphasis on state priority client groups, but may also include issues about accountability to local and state governments, relationships with other local and state health and social service agencies, continuity of care throughout the spectrum of public services, case management. Do academic programs provide new students with knowledge about the organization, goals, problems and issues in the state mental health system?

Question 22 asked respondents whether their program's curriculum includes content regarding state-supported mental health system organization, goals, problems, and issues. Eighty-two programs responded to this question, with 37 (45.1 percent) indicating that they had such content in their curriculum. All of the ten social work programs responding answered yes to this question, while four of seven psychiatry residencies (57.1 percent), 17 of 46 psychology programs (37.0 percent), and six of 19 nursing programs (31.6 percent) said their curriculum contained content on state-supported mental health system organization, goals, problems, and issues. States varied considerably on this question, with two states having no programs teaching such content and one state with 71.4 percent of its programs reporting teaching content regarding state-supported mental health.

Topics of Student Research

As part of their preparation, do students conduct research or studies as part of their graduation requirements on issues which may be useful to the state mental health system?

Question 23 asked programs to list recent dissertations, theses, or projects which might be useful to state mental health service providers or administrators. Appendix F contains a list, organized by topic, of all such publications or projects provided. The 34 responses have been organized into four broad categories--state priority client groups, other client groups and treatment concerns, systems and policy issues, and professional issues. The largest category, state priority client groups, which includes 23 separate items, has been further divided by specific client group (although some studies cut across client groups). Of these 23 studies, eight relate primarily to the chronically mentally ill, seven relate principally to children and youth, five are concerned with the elderly, two deal with substance abuse, and one is concerned with ethnic minorities.

Table 25 summarizes data on student dissertations, theses, or projects by discipline. For purposes of this analysis any program which listed one or more student dissertation, thesis, or project was credited with reporting topics. All other programs were scored as not reporting topics. No attempt was made in this analysis to determine whether or not student work listed would be of actual or potential value to the public mental health system.

As can be seen in Table 25, social work programs more frequently listed student work which they thought would be "useful to state mental health service providers or administrators" (54.5 percent reporting topics), while psychiatry programs, many of which do not require such work of residents, least frequently listed such projects or papers (22.2 percent responses).

VI. Working Relationships With the State Mental Health System

One of the purposes of the survey was to gain a picture of the kinds of working relationships which exist between higher education and service providers. What types of working relationships exist? Who initiates these relationships? What collaboration models have been successful in improving services, training, and research? What might be done to improve relationships?

Questions 24 through 32 ask programs about a number of specific mechanisms which could be used to enhance communication, collaboration or feedback between higher education and state service providers. Other questions in this section ask respondents to identify problems in working with the state and suggested solutions; collaborative projects with state facilities; and faculty research on state problems or issues.

Questions 24 through 32, which attempt to measure programs' degree of contact with state-supported mental health facilities, are of two types. The first set of questions (24, 25, 31, 32a and 32b) encompasses activities which are initiated by the state service system. Does the state invite faculty to serve on state advisory committees? Do CMHCs invite faculty to serve on CMHC governing boards? Do state agencies or facilities request or contract for services, training or consultation from university mental health programs? Do they invite faculty and students to attend state agency-sponsored conferences and workshops?

The second set of questions encompasses activities which are initiated by higher education programs (questions 26, 27, 29 and 30). Do university programs invite service providers to serve on curriculum or other advisory committees? Do university programs request feedback from providers on the quality or appropriateness of the education/training they offer? Do they use service providers to teach courses? Do university programs offer adjunct faculty status to state service providers or administrators?

Other questions designed to explore collaboration between educational programs and the state system ask about supervision of students in state placements, what collaboration projects the programs and their faculty and students are engaged in, what collaborative research is being conducted and what actions may improve collaboration or mutually beneficial working relationships.

Chapter Highlights

- An overwhelming majority of education programs in the West have working relationships with state mental health agencies and facilities. These relationships range from 26 percent of programs whose faculty serve on state advisory or working committees to 77 percent of programs in which faculty provide training, consultation, or direct service to state facilities.
- Overall, psychiatry and social work have stronger relationships with state facilities than do nursing and psychology. Among working relationships identified in the survey, provider-initiated working relationships exceeded those initiated by higher education for all disciplines except psychiatry.
- State mental health agencies are much less apt to invite faculty from higher education programs to serve on state advisory committees than are community mental health centers. The only exception is psychiatry programs which are invited to sit on state advisory committees more often than they are on mental health center committees.
- The most popular type of state-initiated activity is requests to education programs to provide consultation, training, or direct service to state mental health facilities. The most popular type of higher education-initiated activities involve requesting feedback from state facilities concerning the quality or appropriateness of education/training offered by the education program.
- A very large percent of education programs invite state system providers to teach courses within their program. Eighty percent or more of social work and psychiatry programs utilize provider staff members in this way.
- Approximately three-fourths of social work and psychiatry programs are providing adjunct faculty status to one or more staff members from state facilities. Approximately half of psychology programs do so.
- One of the most important areas of collaboration between academic and service programs is in the supervision of students in field placement. Half of social work programs and approximately three-fourths of programs in the other disciplines provide for joint faculty/service provider supervision of students.

- One-fourth of education programs are engaged in a collaborative project with a state hospital or community mental health center to improve services or training in a state facility or to a specific client group. Half or more psychiatry and social work programs are so engaged and approximately 20 percent of nursing and psychology programs.

- Almost a third of education programs have conducted a research project on a state issue or have done research collaboratively with a state facility. More psychiatry and social work programs list state-oriented research than do psychology and nursing programs.

- A third or more of psychology, psychiatry, and social work programs have contact with state service facilities in nearby states. This regional focus helps to meet the needs of states which do not have graduate-level mental health professional education programs within their borders. Only one nursing program of twenty responding reported maintaining contact with state facilities in other states.

- A large majority of respondents in all disciplines would be interested in meeting with state mental health agencies and direct service providers and with other mental health academic disciplines to improve collaboration. An even larger percentage would be interested in meeting with these groups in a regional conference on mental health systems research. Virtually no programs indicated they did not wish to meet, but a few were not sure about meeting until they knew more about the purpose and objectives of such meetings.

Higher Education Collaboration Summary Scores

Table 26 summarizes by discipline respondents' answers to questions 24 through 32. Responses to question 33 do not appear in Table 26 because there was little variation in programs' responses to this question, with almost all programs answering "no" to it.

Table 26 also contains programs' average scores on three measures created to measure the amount and type of collaboration occurring between higher education and service providers. Programs' scores on the overall collaboration summary score were created by counting each program's "yes" responses to each of the questions, then dividing by the total number of questions in the composite (9), yielding a percentage of possible 'yes' responses. An overall collaboration summary score was calculated for a program only if that program provided an answer to at least six of the nine questions used to create this measure.

The collaboration initiated by higher education summary measure was created by counting programs' "yes" reponses to Questions 26, 27, 29, and 30, then dividing by the number of questions in the score (4), yielding a percentage of possible 'yes' responses. This score was created only for programs which answered at least three of these four questions.

Programs' scores on the collaboration initiated by service provider measure were obtained by counting program's "yes" reponses to questions 24, 25, 31, 32a and 32b, then dividing by the total number of questions in the composite (5), yielding a percentage of possible 'yes' responses. A score was not calculated for programs with missing data on two or more of these questions.

As can be seen in Table 26 social work programs demonstrate the highest level of overall collaboration (80.7%) and also rate highest in collaboration initiated by higher education (79.5%) and by service providers (81.8%). Psychiatry rates second in overall collaboration (69.7%) as well as in collaboration initiated by higher education (71.9%) and by service providers (67.5%). Psychology comes in third with overall, service provider initiated and higher education initiated collaboration scores of 55.5, 60.0, and 50.9 percent, respectively. These scores are considerably lower than those of social work and psychiatry. Nursing indicates the least collaboration of the four disciplines, with scores of 47% for overall collaboration, 46.4% for higher education initiated collaboration and 47.6% for provider-initiated collaboration. So, for all three of these summary scores, the ranking of the four types of programs was the same: social work programs scored highest, followed by psychiatry, psychology, and finally nursing. It should be noted that all nursing programs are included in this analysis. Nursing programs with psychiatric specializations have much stronger relationships with state mental health providers than do programs without that specialization.

Some differences among the four types of programs can be found when one looks at the difference between service provider and higher education initiated average summary scores.

For social work, nursing, and psychology, provider initiated collaboration slightly exceeded higher education initiated activity. For psychiatry, academic program initiated activity exceeded collaboration initiated by service providers.

Totaling across all four disciplines collaboration initiated by service providers exceeded that initiated by academic programs.

Collaborative Activities Initiated by the State Service System

Do Faculty Serve on State Mental Health Agency's Planning or Advisory Committee?

Question 24 asked programs to indicate whether faculty members in their programs serve on the state mental health agency planning or advisory committee. Twenty-five programs (26.3 percent) indicated that faculty participate on such a committee. Psychiatry had the greatest representation with five of eight respondents (62.5 percent) indicating such participation. The lowest participation came from Nursing (2 of 21 programs or 4.8 percent).

Do Faculty Serve on CMHCs' Governing Boards?

Question 25 asked respondents to indicate whether faculty from their program serve on a community mental health center governing board. Fifty-seven programs (60 percent) said that some member of their faculty did serve on such a board. Intuitively this figure seems quite high, and the question might have been interpreted by respondents to mean advisory boards or other CMHC committees. In any case, reported participation varied by discipline from a high of nine of eleven social work programs (81.8 percent) to 9 of 21 nursing programs (38.1 percent).

Do Faculty Provide Services to State?

Question 31 asked respondents to indicate whether or not faculty from their programs provide direct services, training, or consultation to state mental health facilities or community mental health centers. As can be seen in Table 26, all disciplines show high levels of involvement when the direct service, training, and other consultation are taken together. A "yes" answer to any one of the three components in the question provide a positive response on Table 26. When we examine these three potential areas of involvement individually, however, as in Table 27, a somewhat different picture emerges.

Table 27 shows that psychiatry is much more involved than the other three disciplines in direct service activity in state-funded programs. While all disciplines seem to be quite involved in training activities with state-funded programs, social work is much more heavily involved in this type of activity than are the other disciplines. Social work and psychiatry rank higher in involvement with other types of consultation than do the other two disciplines. Not surprisingly, academic faculty as a whole are far less involved with service programs as direct providers of service than they are as trainers or consultants, with psychiatry being something of an exception to this generalization.

Faculty and Student Participation in Conferences or Workshops Sponsored by State Mental Health System

Question 32 asks whether faculty members or students have attended conferences, workshops, and similar events sponsored by the state mental health system as participants, in contrast with the previous item which inquires about involvement of faculty as trainers. Table 26 shows that social work faculty and students are considerably more involved as participants in state-sponsored training activities, though all disciplines show quite high involvement. For all disciplines except psychiatry, more programs report faculty involvement than report student involvement.

Collaborative Activities Initiated by Higher Education

Do State Mental Health Staff Serve on Program's Advisory Committee?

Question 26 asked respondents to indicate whether a staff member from any state-funded mental health service program served on the academic program's advisory or curriculum committee. About 41.1 percent of all respondents indicated that they had such representation. Representation differed considerably by discipline, with eight of the eleven social work programs (72.7 percent) saying that state-funded service programs were represented on their advisory or curriculum committees. This was followed by psychiatry (five of eight programs or 62.5 percent); nursing (9 of 21 programs or 42.9 percent); and psychology (17 of 55 programs or 30.9 percent).

Does Program Get Feedback From State Mental Health Facilities?

Question 27 asked whether programs had a method of receiving feedback from mental health service providers concerning the quality or appropriateness of their training programs. Sixty-two programs (65.3 percent) indicated that they had some method for receiving feedback. Responses differed rather widely by discipline, with ten of the eleven social work programs responding (90.9 percent); 35 of 55 psychology programs (65.5 percent); 12 of 21 nursing programs (52.4 percent) and five of eight psychiatry residency programs (62.5 percent) indicating they had some method of getting feedback.

Do State Mental Health Staff Teach Courses?

Question 29 asked whether the academic programs queried use staff members from state mental health agencies or service providers to teach courses in their programs. As shown in Table 26, 63.2 percent of respondents said they do use state administrators and/or service providers in this way. Psychiatry residency programs (87.5 percent) and social work programs (81.8 percent) report considerably more utilization of state service system professionals as instructors than do nursing (52.4 percent) or psychology (60 percent).

Do State Mental Health Staff Have Adjunct Faculty Status?

Question 30 asked academic programs to indicate the number of service providers or administrators from the state-supported mental health system with adjunct faculty status. Because definitions of adjunct faculty status seems to differ widely from one program to another and because sheer size of program can be a very powerful determinant of numbers of persons with such status, data were collapsed to merely indicate whether a program did or did not grant such status to anyone from the state-supported mental health system. As Table 26 shows, 50.5 percent of respondents said that state-system service providers and/or administrators had adjunct faculty status in their programs. In social work 72.7 percent and psychiatry 75 percent of programs answered the question affirmatively. In psychology 47.3 percent said they have state-system professionals with adjunct faculty status. In nursing 38.1 percent of the responding programs have state-system professionals with adjunct status.

Collaboration in State Supervision

Perhaps the most important and certainly the most readily available area of collaboration between academic and service programs is in the supervision of students in field placement or internship. Question 11 asked respondents to indicate whether students working in state-supported mental health programs are supervised by faculty, agency staff or by both faculty and agency staff.

As can be seen in Table 28, in every discipline at least half of the reporting programs indicate that students are jointly supervised by faculty and agency staff (50.0 percent for social work, 81.25 percent for nursing, 77.08 percent for psychology, and 71.43 percent for psychiatry). Psychiatry had the highest percent of trainees supervised by faculty only (28.57 percent), while in no case are social work students supervised by faculty alone. Social work students are, in half of all programs reporting, supervised by agency staff alone, while in psychiatry this was never the case for reporting programs. Psychology and nursing were both low in frequency of supervision either by faculty or agency staff alone, with the great majority of programs in these two disciplines, as well as in Psychiatry, reporting joint supervision. In interpreting these data, it is important to point out that in psychiatry joint faculty/staff appointments are the norm, while in social work agency staff are often designated as supervisors but faculty have a strong liaison role.

Current Collaboration Projects Identified by Respondents

Educators and service providers across the nation have indicated interest in collaboration models which have been successful in improving services or training. In order to gather information on such efforts for sharing across states, respondents were asked to list projects in which they were engaged to improve service or training in a state facility or to a specific priority group. Responses to this question are found in Appendix G, where 17 training-related projects and 16 service-related efforts are listed. Both the training and service efforts were varied in scope and content.

Training-related efforts included training needs and evaluation studies, joint-sponsorship of conferences and workshops, training of managers and administrators as well as service providers, internships with state priority populations, participation in ongoing structures and processes for improving training, development of proposals for training, and curriculum development projects.

Service-related collaboration included testing and screening; faculty and/or students working in direct services to state-priority populations; work with a variety of organizations including hospitals, prisons, and mental health centers; collaborative work in interagency service networks; program reviews; needs assessments and work on program advisory groups.

Social work programs had the highest percentage of respondents reporting at least one collaboration project in training or services (54.5%), followed by psychiatry (50%), nursing (19%), and psychology (18.2%). Overall, 25.3% percent of the 95 programs responding to the survey listed at least one project in which the program or individual faculty or students had worked collaboratively with a state mental health facility.

Collaboration in Faculty Research

Another important area of collaboration between the state mental health system and academic programs in the basic mental health disciplines is research on state mental health problems and issues. Question 38 asked respondents to list faculty research recently conducted, in progress or being planned which investigates state mental health problems or issues; uses populations or data from state facilities; or has been collaboratively developed between the university and state agencies or facilities. One or more research topics were listed by 31.6% of respondents. Fifty percent of psychiatry respondents, 45.5% of social work, 30.9% of psychology, and 19% of nursing respondents listed a research project on a state issue or done collaboratively with a state agency.

The 39 research topics offered in response to question 38 have been divided into three broad categories in Appendix H--state priority client groups, other client groups and treatment issues, and systems and policy issues. The largest category, state priority client groups, which includes 21 separate studies, has been further divided by specific client group (although some studies cut across client groups). Of these 21 studies eight are related to the chronically mentally ill (including schizophrenia); five are concerned with substance abuse; three are concerned with emotionally disturbed children and youth; five relate to minorities; two are concerned with mentally ill offenders and one relates to the elderly.

Interstate Collaboration

Because several of the western states do not have graduate programs in all four basic disciplines, collaboration across state boundaries is particularly important in the West. Five of the thirteen states do not have psychiatry residency programs or graduate social work programs. While all thirteen states have graduate-level psychology and nursing programs, one state does not have a doctoral clinical psychology program and five states do not have a psychiatric nurse specialization in their graduate nursing program. Therefore, it is useful to know the extent to which academic programs collaborate with the service system in states other than their own.

Question 28 asked respondents whether their academic programs had contacts with state-supported mental health agencies or facilities in states other than that in which their own program is located. Of the 86 academic programs which responded to this question, 26 (30.2 percent) indicated they had contact with service programs in other states. Psychology with 19 of 49 programs (38.8 percent), psychiatry with three of eight programs (37.5 percent), and social work with three of nine programs (33.3 percent) indicated considerably more interstate contact than did nursing (one of 20 programs, 5.0 percent).

Improving Collaboration

Interest in Collaboration Meetings

One potentially useful mechanism for improving collaboration between higher education and the state-supported mental health system is meetings--either regionally or within states--involving academicians, direct service providers, and state agency administrators.

Question 36 of the survey was intended to ascertain respondents' interest in meetings to improve collaboration between higher education and the state service system. Table 29 summarizes data from this question by discipline. Interest in participation in such meetings was highest for social work followed by psychology, nursing, and psychiatry. Only one or two programs in any discipline--none in social work--answered "no" to this question. From 10% to 25% of respondents were "not sure" about meeting but might be receptive depending on the specific objectives of the meeting.

Interest in Conference on Mental Health Systems Research

An even larger percentage of respondents would be interested in participating with other researchers, academicians, administrators, and providers in a regional conference on mental health systems research. Of the eighty-seven programs which answered this question, fifty-eight would be interested in a regional research conference, sixteen programs are not sure, and only three are not interested.

Respondents' Suggestions for Improving Relationships

Respondents were asked in question 34 to suggest solutions to problems they might have had in working with the state-supported mental health system. A wide spectrum of recommendations was offered.

Among the proposed solutions were greater involvement of faculty on state planning and advisory boards; more mutual representation on planning committees; specific procedures for airing complaints and grievances; hiring of more graduate-prepared nurses; reducing bureaucratic requirements for student field work; providing more adequate supervision of students; rotation of a teaching assignment among state system employees; more (and more stable) funding of clinical training; more stable funding of field placements and internships; and stipends for graduate students working on master's degrees in psychology.

Respondents were asked in question 35 to indicate the first steps they considered necessary in order to improve relationships between state-supported mental health programs and their own academic programs. Numerous suggestions were offered ranging in theme from joint efforts at improved communication to specific changes in policy or practice in either state agencies or academic programs or both.

Specific proposals included holding regular meetings between programs, formal collaborative agreements, mutual program visitations, mandated collaboration from top-level administrators, shared research projects, guaranteed jobs for graduates, improved funding, state support for academic training, improved career ladders for graduates, state employment of student interns, more stable and consistent cooperation from state leadership, released time for faculty in order to devote time to collaborative efforts, and developing an advisory council of human service program administrators to advise academic programs on state needs.

VII. Conclusions and Recommendations

This study provided some baseline information on the supply of graduate mental health professionals in the western states, the characteristics of academic programs which train these professionals, the perceptions of academic programs regarding preparation of their graduates to work in public mental health and with state priority client populations, and the working relationships between academic programs and state supported mental health agencies and facilities.

The results of this study present a rather positive picture of current relationships between academic mental health programs and the state mental health service system and, particularly, the potential for future productive relationships. Some of the positive findings are:

- The number of programs which took the time to respond to the survey is commendable. Almost 70 percent of academic programs responded by filling out the questionnaire or by sending an explanatory letter. About 62.5 percent of programs contributed usable data.

- Most responding programs place a medium to high priority on preparing their graduates to serve the types of client populations which are of priority concern to the state mental health system. The only exception is the mentally ill offender population which received a rather low priority rating.

- Most academic programs perceive a medium to high level of interest within their program and among their faculty in giving more attention to preparing graduates to serve state priority client groups.

- Most programs report that the barriers preventing them from giving more attention to state priority client groups are not attitudinal. Structural considerations such as lack of available time in curriculum and lack of financial support for students are more often perceived as barriers than are attitudes and values of faculty or program philosophy and goals.

- The positive value of academic-state service system collaboration is documented by the number of respondents who listed specific collaboration projects to improve services or training or collaborative research involving their academic programs and state service provider agencies or personnel. Approximately half of psychiatry and social work program respondents listed specific projects in which they are collaborating with state service facilities to improve services, training or research.

- And finally, the potential for future increases in collaborative activity is confirmed by the overwhelmingly positive response to questions about meeting with other groups or organizations to discuss improving collaboration between higher education and the state supported mental health system and the interest in a regional conference of researchers, service providers and administrators on mental health systems research.

What seems to account for the relatively positive findings about the extent of collaboration between academia and the state service system and the willingness of academia to consider state system needs in their graduate preparation?

Realistically, the findings of this study are based upon academia's own perception of its attitudes, roles and accomplishments and do not necessarily reflect the perception of state service agencies. As such, these results are not an objective assessment of the extent of academic/service system collaboration or of the preparation of graduates to meet state needs. On the other hand, the very fact that the academic programs seem to want to "look good" to state agencies and service providers may indicate a rather large shift in academia's attitude about public sector mental health and the value of closer collaboration with public sector service providers.

The positive attitudes may be in part be due to activities, conducted by WICHE and by a number of individual state human resource development programs over the past four years, to strengthen relationships between faculty and service providers in the western states. These activities have provided academic programs and service providers with an opportunity to become better acquainted, to discuss common objectives, to learn more about each other's needs and problems, and to identify ways the systems may work together more effectively.

It is also possible that the relatively small number of graduate mental health programs in each state, except for California, make collaboration easier and perhaps more necessary. For example, support for mental health legislation, licensing for mental health professionals, etc. may require support from professionals in all types of mental health settings, if such legislation is to succeed.

Finally, findings related to academic attitudes and intentions seem to be more positive than findings related to current curriculum, research, and working relationships.

There appears to be a solid base for developing curricula more relevent to state needs, closer relationships, and relationships of mutual benefit to education and service provision in the western states. From the point of view of state service providers, however, there are problems and weaknesses as well as strengths and successes. Some of these together with recommendations for action are discussed below.

The Supply of Mental Health Professionals

The findings of this study indicate that the western states as a region continue to be a shortage area in both utilization and training of psychiatrists and graduate psychologists, social workers and nurses. Although the western states make up 19 percent of the population of the United States, a comparison of estimated number of graduates for each discipline in this survey with total graduates by discipline in 1981 (Taube & Barrett, 1983) indicates that only six percent of master's level nurses, 13 percent of graduate level social workers, and 16 percent of Ph.D. psychologists are graduated from programs in western states. Also, five of the thirteen western states are almost totally dependent on graduate programs in other states for mental health professionals. Psychology and nursing are the only graduate-level mental health programs in those states and only one of those states has a nursing program with a mental health specialization.

The relative shortage of graduate mental health training in the West means that state mental health facilities continue to recruit many graduate professionals from outside the region. This need to "import" graduate professionals from outside the region limits the influence that state providers can have in working with training institutions to provide training more relevant to state needs.

The maldistribution of graduate-level training in the western states would seem to make it particularly desirable for those education programs in the West to relate to regional as well as to state needs. This is particularly true of psychiatry, social work and psychiatric nursing programs which are in short supply in western states outside California. Meeting needs for mental health professionals in state systems in some of the smaller, more rural states may require innovative programming to outstation graduate training and field placement away from the university and in some cases outside the state. Coordination among the different disciplines in providing pre-service graduate education, field placement and, perhaps, continuing education for staff of state mental health facilities to nearby states without graduate programs would be of substantial benefit to those states and to the region.

In general, the proportions of the disciplines being trained in the West are similar to the corresponding proportions utilized in community mental health facilities. Psychology and social work programs are clearly the major suppliers of graduate mental health professionals in western states. They outproduce psychiatry and nursing in the numbers of students enrolled, graduated and in field placement. These two disciplines also constitute the overwhelming majority of core discipline professionals in state hospitals (74.3%) and community mental health centers (82.5%) in western states. This utilization pattern is somewhat different from the national pattern in which 52 percent of professionals in state hospitals and 77.3 percent of professionals in community facilities are psychologists and social workers. The heavy reliance on these two professions in the West is undoubtedly partly due to the difficulty in recruiting psychiatrists and psychiatric nurses to work in state hospitals and community mental health centers. The fact that comparatively few of these two professional groups are trained in western states has made it more difficult to do anything about these shortages and has no doubt encouraged substitution of other professional and paraprofessional staff.

Some implications of this supply pattern are:

- The most available graduate education programs for state providers to look to for help in meeting state needs for graduate level professionals are psychology programs. Every state has at least a master's level clinical or counseling psychology program and all but one of the western states have a doctoral level program. The findings of this survey do indicate that in general psychology programs are somewhat less interested than are social work and psychiatry programs in preparing their graduates to serve chronically mentally ill clients and elderly clients, but psychology programs rank themselves equal to or above other disciplines in preparing graduates to serve other state priority populations. Psychology programs may welcome stronger relationships with state providers as it appears more psychologists, particularly master's level psychologists, are being graduated than can readily find employment.

- Social work programs, while not as available geographically, seem to have the most interest in working with state providers. Social work programs place a very high priority on preparing graduates to serve all state priority client groups except mentally ill offenders and believe their programs and faculty have a high level of interest in giving more attention to preparing graduates to serve these groups. Social work programs may also welcome opportunities to work more closely with state providers as employment opportunities for their students in other social service and human service agencies dwindle.

- The heavy dependence on psychology and social work would seem to make it even more important that the curriculum of these programs include specific skills and knowledge important in the treatment and management of the types of clients most often served by state providers.

- It is no surprise that psychiatry residency programs in the West are enrolling and graduating too few psychiatrists to meet public sector needs. What might be done about this shortage is a more complex matter and the answer probably lies more in recruitment and distribution efforts than in greater production from area programs. Because of chronic shortages in the past, state facilities in the West have learned to use psychiatrists sparingly. As shortages become more acute, it may be useful for providers and educators to work together to address the problem. One approach is to attract a larger proportion of psychiatrists completing their residency to state system employment.

- The role of the discipline of nursing in the mental health workforce should not be minimized, but occurs primarily at the undergraduate level. According to NIMH's IMHO data, only 12.8 percent of the registered nurses who listed psychiatric or mental health as their principle field had a master's degree or higher, and nearly two thirds of nurses in mental health facilities had less than a bachelor's degree (Jenkins and Turk, 1983). The percentage of RNs employed who list psychiatric nursing as their area of specialization is slightly lower for the thirteen western states (4.7%) than the national average of 5.4 percent (American Nursing Association, 1981).

Graduate Preparation for Service to Priority Client Groups

One of the major criticisms leveled at graduate mental health training programs by state service providers has been the need to retrain newly graduated mental health professionals to work with types of client groups other than those their training had prepared them to serve. Clients served by the public sector tend to be more seriously and chronically disturbed than those served by the private practice sector, and they often present more of a management problem and show less improvement as a result of treatment. Mental health professional education programs have been frequently accused of training their students to treat the worried well and neglecting to provide students with the knowledge, skills and attitudes needed to serve the more difficult type of client groups most frequently seen in state hospitals and community mental health centers.

Self ratings of educators in this study on how well their programs are preparing graduates to work with these client groups indicate that, to some extent, the impressions of service providers are justified. On a four point scale in which 1 is poor, 2 is fair, 3 is good and 4 is excellent, most programs in all disciplines rate student preparation to serve the different state priority client groups as less than "good" and certainly not "excellent." The average rating of programs in preparing graduates to serve mentally ill offenders even drops below "fair." In other words, educators themselves recognize that they have a ways to go to meet needs of the state mental health system for personnel who have the knowledge and skills necessary to serve the states' priority populations.

Academic programs rate higher their roles in preparing graduates to serve state priority client populations and their level of interest in giving more attention to these groups in their curricula than they rate their current preparation of students to serve these groups. This finding seems to indicate that, in general, programs recognize: (1) an important role of their program is to prepare graduates to work in the public sector with state priority client populations; (2) while they are making efforts to prepare their graduates along these lines increased effort is needed, and (3) their programs and faculty are interested in giving more attention to this type of preparation.

These results would seem to offer solid support for the desirability of joint activities between service providers and educators in the area of curriculum development. For instance, programs' preparation of students to serve elderly clients was rated lower than all other client groups except mentally ill offenders. However, programs rated their role priority and interest in giving more attention to elderly clients as high or higher than they rated other client groups. Services to the elderly are a growing concern of states, but most service providers are not clear on just what services are needed, when and where they should be delivered, how they should be coordinated with other senior services, or who should be providing them. Collaboration at an early point in the planning process could result in well-articulated efforts to improve mental health services to the elderly, including a cadre of mental health professionals with graduate specializations in this area.

The findings regarding special populations also indicate that the four disciplines tend to concentrate on and apparently focus more interest and curriculum time on different types of clients. For instance, psychiatric residency programs rate the quality of preparation to serve chronically mentally ill clients much higher than do other disciplines and also higher than the quality of their own preparation to serve other priority populations. Psychology rates preparation to work with MIOs higher than do other disciplines; social work rates work with children and youth higher; etc. Interdisciplinary collaboration in curriculum development and/or teaching of classes for students of all disciplines might offer students an opportunity to learn through one discipline about a population ignored by another.

Lack of time in the curriculum and lack of financial support for students are reported by most programs to be the greatest barriers to their giving more attention to state priority groups. Since academic curricula tend to become overloaded with pressures to add courses, an alternative option for including specialized training in a discipline's crowded curricula may be to focus on the field experience level. A useful "mini-specialization" to prepare students to work with a particular client population might consist of field experience in a facility or program providing specialized services to a given priority client group, didactic course work and seminars (interdisciplinary if possible), specialized reading assignments, and perhaps research or student projects focused on that client group. A useful way to move forward in this area may be the creation of an interdisciplinary task force of educators and service providers to explore some of these options, and to devlop and test a field experience based curriculum module for one or more client groups.

One last observation can be made regarding findings in the preparation of graduates to serve priority clients. Although the barriers of program philosophy/goals and attitudes/values of staff had relatively low overall importance rating, these barriers were very good predictors of how much effort a program was devoting to preparing students to work with state priority client groups. That is, those programs with the lowest client group effort/preparation scores tended to rate these two barriers as being more important than did other programs. It is not known whether these two barriers cause programs to neglect to prepare graduates to serve state priority client populations or whether lack of familiarity and contact with these populations lead to negative faculty attitudes and rigid philosophy and goals. One possible interpretation of this finding is that those programs devoting the least amount of effort towards preparing graduates to work with state priority client groups may be doing so as a matter of choice. It also suggests that these particular programs may not be very good candidates to involve in curriculum development efforts at this time.

Preparation of Graduates to Work in the Public Mental Health System

In addition to a familiarity with the needs of and most effective interventions for state priority client groups, graduates who will work in state facilities also need education and experience in organizational and policy areas specific to state systems. Three areas important to the public mental health system are preparation of graduates for leadership, management and policy development roles in public mental health; preparation for work on an interdisciplinary team in a mental health program; and knowledge about state mental health system organization, goals, problems and issues.

Only about half of programs responding to the survey indicate their programs include course content or experience which prepare graduates for leadership, management or policy development roles or include content on state mental health organization, goals, problems and issues. This low percentage is somewhat distressing in view of the fact that the graduate level mental health professional is being utilized more and sooner in the state system as a manager, supervisor or program leader. Approximately half of professionals with graduate degrees in the four disciplines have some supervisory or management responsibility at any given time and most will become managers if they stay in the system even for a relatively short time. Social work programs do, for the most part, include management, supervisory, and public policy content in their curricula. This may be due to the fact that many social workers trained by these programs will accept management and leadership positions in social service agencies. The other three disciplines include such content much less frequently, in spite of the fact that an even larger percent of psychiatrists, nurses and psychologists working in the state mental health system are managers and supervisors than are social workers. It would seem most important that graduate mental health programs which purport to train professionals for the public sector include management, supervision and public policy content in their curricula or strongly advise their students to pursue such training in other schools at the university prior to graduation. At a minimum students need to be aware that they are destined to become managers if they work in the state mental health system.

About two thirds of respondents indicated that their programs include preparation of students to work on interdisciplinary teams. Since such teams tend to be the predominant model in public mental health facilities, it would seem that any program which prepares graduates to work in public mental health needs to make students aware of the particular competencies and roles of the other basic disciplines and provide opportunities to learn from and work with other disciplines. The whole area of state mental health problems and issues and the organization and management of public sector mental health could be most usefully addressed in an interdisciplinary framework. Development of courses, seminars, student projects and in vivo experiences in public policy development in which students from all disciplines participate and which are taught by educators, providers, administrators and community leaders could be an exciting and useful way to meet the need for this type of training.

Working Relationships Between Academia and the State Mental Health System

Overall, collaboration between higher education and the state mental health system appears to be alive and well in the West, but there is certainly room for improvement. The present study was able to identify both areas where collaboration is quite strong and places where collaborative relationships are in need of improvement.

Areas of Strength

Evidence of a healthy level of collaboration comes from the overwhelming majority of programs which reported having a working relationship of some kind with state mental health agencies or facilities, with most programs reporting a variety of different kinds of working relationships.

More specifically, over 60 percent of the programs responding reported:

- inviting state system service providers to teach courses within their programs;
- providing staff training or consultation to state facilities;
- serving on CMHC board or committee;
- using joint faculty/service provider supervision of students in field placement;
- a high level of faculty and student participation in conferences or workshops sponsored by the state mental health system;
- a high level of interest in meetings with state mental health agencies and direct service providers and with other mental health disciplines in order to improve collaboration;
- having a means of receiving feedback from state mental health facilities regarding the quality or appropriateness of their training programs.

Areas in Need of Improvement and Recommendations

For almost all of the working relationships identified in this study, psychiatry and social work appeared to have stronger relationships with the public mental health system than did nursing and psychology. Although nursing scored lowest on most measures of collaboration, these analyses included both nursing programs with and without mental health specializations. Nursing programs with mental health specializations have much stronger relationships with state mental health providers, than do programs without this specialization. Therefore, the discipline in greatest need of improving its working relationships with the public mental health system is probably psychology, particularly since a slightly higher proportion of graduates from psychology programs are employed in state mental health agencies than are graduates from the other three disciplines.

The state mental health agency does not invite faculty to serve on its advisory committees as frequently as do CMHCs. Faculty from nursing and psychology programs are much less apt to be invited to serve on state committees than are social work and psychiatry. Psychology and nursing programs are also less apt to involve state agency staff to serve on their curriculum review or other education program committees than are social work and psychiatry programs. These two disciplines invite state providers to teach classes or offer adjunct faculty status much less frequently than social work and psychiatry.

These findings indicate that state mental health agencies themselves should take a more aggressive role in initiating improved working relationships with academia. The closer relationships between all disciplines except psychiatry with CMHCs than with state agencies may be at least in part due to an unwillingess on the part of state agencies to initiate significant contact. Findings also indicate that nursing and psychology programs, which believe an important mission of their programs is to meet mental health needs identified by the state, may need to reach out to state providers and the state mental health agency.

A final area which needs to be addressed is the need for academic programs to work with state agencies and providers in nearby states, as well as their own state. Programs which currently do not have ties with providers in other states may wish to get together with programs which have developed excellent region-wide programs. These programs often involve outstationing course work as well as field experience in the home state of the student, most often in public settings.

Where Do We Go From Here?

The survey has provided a rich harvest of ideas and recommendations from academic programs on ways to improve education to meet state needs, solutions to problems in working with the state mental health system, and specific collaborative projects which have been implemented in the different states. Looking at these, the conclusions from the survey data examined above, and suggestions from the advisory committee which worked with WICHE on the survey and this publication, certain clear recommendations for action emerge. These recommendations may be useful in guiding the objectives and activities of state and the WICHE regional human resource development programs over the next few years.

1. Responses to this survey provide a virtual mandate to organize and conduct a regional conference of researchers, service providers, and administrators on mental health systems research. Such conference could disseminate recent mental health systems research and discuss program and service applications with state administrators and providers, provide a forum for faculty and student research, stimulate joint state/university research on state and system issues, and provide an opportunity for developing an applied systems research agenda.

2. Survey responses also strongly support opportunities for educators to meet with their state mental health agency, state hospital and CMHC providers and with other mental health disciplines in order to improve collaboration between higher education and the state mental health system. Such meetings might be at the state, regional, or national level or some combination of these.

3. The interest among academic programs in strengthening their ability to prepare graduates to serve state priority client populations certainly seems strong enough to warrant a major effort in curriculum development. Joint faculty/provider curriculum projects are underway in several states including Utah and Washington. At the regional level, it may be useful to form an interstate interdisciplinary educator/provider expert task panel to examine the question of specializations focused on state priority client groups. The panel might gather information on existing curricula and specializations of this type, determine possible formats, explore the potential for making some of these interdisciplinary, and begin to develop model curricula.

4. It is also important to involve faculty in policy development roles at the state and local level in order to take advantage of academia's growing interest and expertise in state issues. One approach pioneered by the Colorado Division of Mental Health is to establish part-time paid faculty fellowships which enable faculty to learn about the state system and to conduct a mini-research or policy analysis project on an important state issue or problem.

5. HRD programs may wish to consider allocating some HRD resources for pilot programs to carry out some of the suggestions and recommendations of this study. State or regional projects or RFPs might focus resources on such activities as: 1) an interdisciplinary curriculum for state mental health management or policy development; 2) student stipends for interdisciplinary or other innovative field placements in programs serving special populations; 3) outstationing graduate education in a state which does not have a graduate program in that discipline; and 4) faculty fellows or research fellows projects.

6. If this study proves useful in stimulating productive and mutually beneficial collaboration between academic programs and state mental health providers, it may also be informative to survey undergraduate programs which prepare students to work in the public mental health field. Baccalaureate nursing and social work programs particularly provide a fairly large proportion of the state mental health workforce. Graduate and undergraduate professionals in the rehabilitative therapies and, possibly, associate degree level mental health workers or psychiatric technicians might also warrant attention.

7. Finally, we may wish to compile and publish descriptions of some of the more innovative and effective collaboration projects which have been developed between academic programs and service providers and/or state mental health agencies. A book of collaboration vignettes would provide further documentation of the value of working together to solve difficult problems facing the mental health system as a whole. This publication could also serve as a handbook of ideas and "how to" information for those programs interested in promoting or participating in academic/service system collaboration but who are not quite sure how to get started.

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Table 1

Tables

Percentage of All Staff FTEs and Patient Care Staff FTEs by Type of Facility and Staff Discipline

	Type of Facility					
	All Facilities		State & County Psychiatric Hospitals		Federally Funded CMHCs	
	Type of Staff Positions					
Staff Discipline	All Staff FTEs	Patient Care Staff FTEs	All Staff FTEs	Patient Care Staff FTEs	All Staff FTEs	Patient Care Staff FTEs
Social Workers (MSW/MA+)	4.9%	7.3%	1.6%	2.6%	10.1%	14.3%
Registered Nurses	9.9%	14.5%	7.2%	11.3%	9.7%	13.7%
Psychologists (MA+)	3.4%	5.1%	1.3%	2.1%	7.6%	10.8%
Psychiatrists	3.4%	5.0%	1.8%	2.8%	4.0%	5.6%
Total	21.6%	31.9%	12.0%	18.8%	31.4%	44.3%

Source: National Institute of Mental Health. Division of Biometry and Epidemiology. Unpublished data from Inventory of Mental Health Facilities, 1978. Reprinted in National Institute of Mental Health. Mental Health, United States 1983, Taube, C.A., and Barrett, S.A., eds. DHHS Pub. No. (ADM)83-1275. Rockville, Md.: the Institute, 1983.

Table 2

Percent of Respondents From Each Discipline Who Are Managers for CMHCs and State Hospitals

	Number of Managers	Total No. of Resp.	% Mgrs. of Discipline
Psychiatry	77	155	49.7%
Ph.D. Psychology	129	221	58.4%
M.A. Psychology	63	178	35.4%
Social Work, Master's and Above	202	453	44.6%
Nursing, Master's and Above	20	32	62.5%
Total All Disciplines	491	1,039	47.3%

\This table contains data from 9 state hospitals and 89 CMHCs in the states of: Alaska, Arizona, Hawaii, Idaho, Montana, New Mexico, and Utah.

Source: Davis, M., and Greenhalgh, J. Who Manages State Mental Health Facilities? Western Interstate Commission for Higher Education. Manuscript in preparation, 1985.

Number of Programs Surveyed by Discipline and State

State	Total	Program Discipline			
		Social Work	Nursing	Psychology	Psychiatry
Alaska	2	0	1	1	0
Arizona	9	1	2	5	1
California	71	8	14	39	10
Colorado	12	2	1	8	1
Hawaii	5	1	1	2	1
Idaho	4	0	1	3	0
Montana	2	0	1	1	0
Nevada	4	0	2	2	0
New Mexico	7	1	1	4	1
Oregon	8	1	2	4	1
Utah	10	2	2	5	1
Washington	16	2	2	11	1
Wyoming	2	0	1	1	0
Total	152	18	31	86	17

Table 4

Response Rates by State

State	Number of Questionnaires in Data Base	Number of Questionnaires Mailed	Response Rate
Alaska	2	2	100.0%
Arizona	3	9	33.3%
California	38	71	53.5%
Colorado	9	12	75.0%
Hawaii	4	5	80.0%
Idaho	1	4	25.0%
Montana	2	2	100.0%
Nevada	2	4	50.0%
New Mexico	5	7	71.4%
Oregon	6	8	75.0%
Utah	10	10	100.0%
Washington	11	16	68.8%
Wyoming	2	2	100.0%
Total	95	152	62.5%

Table 5

Number and Percent of Respondents by State and Discipline

	Discipline				
State	Social Work	Nursing	Psychology	Psychiatry	Total
Alaska	-	1.1%	1.1%	-	2.1%
N=	0	1	1	0	2
Arizona	-	2.1%	1.1%	-	3.2%
N=	0	2	1	0	3
California	3.2%	8.4%	25.3%	3.2%	40.0%
N=	3	8	24	3	38
Colorado	2.1%	-	7.4%	-	9.5%
N=	2	0	7	0	9
Hawaii	-	1.1%	2.1%	1.1%	4.2%
N=	0	1	2	1	4
Idaho	-	1.1%	-	-	1.1%
N=	0	1	0	0	1
Montana	-	1.1%	1.1%	-	2.1%
N=	0	1	1	0	2
New Mexico	1.1%	1.1%	2.1%	1.1%	5.3%
N=	1	1	2	1	5
Nevada	-	-	2.1%	-	2.1%
N=	0	0	2	0	2
Oregon	1.1%	2.1%	2.1%	1.1%	6.3%
N=	1	2	2	1	6
Utah	2.1%	2.1%	5.3%	1.1%	10.5%
N=	2	2	5	1	10
Washington	2.1%	1.1%	7.4%	1.1%	11.6%
N=	2	1	7	1	11
Wyoming	-	1.1%	1.1%	-	2.1%
N=	0	1	1	0	2
Total	11.6%	22.1%	57.9%	8.4%	100%
N=	11	21	55	8	95

Table 6

Size of Program by Discipline

Discipline	Number of Programs	Students Enrolled Fall, 1984			Students Graduated 1983-4 Academic Year		
		Average	Total	Range	Average	Total	Range
Social Work (M.A./M.S.W.+)	11	186.1	2048(3352)	19 -329	74.4	819(1340)	0-158
Nursing (M.S.+)	21	40.6	854(1261)	3 -145	9.2	195(288)	0- 30
Psychology (Ph.D./Psy.D.)	34	64.5	2192(3425)	0 -269	10.2	347(542)	0- 41
Psychology (M.A.)	39	45.5	1776(2775)	0 -475	9.8	383(598)	0- 43
Psychiatry	8	32.4	259(1036)	12 - 83	7.8	62(248)	3- 18
Total	95	75.0	7129(11849)	0 -475	19.0	1808(3020)	0-158

Graduate Degrees Offered by Program Discipline

Type of Degree	Number of Programs Offering Degree	Number Enrolled (Fall, 1984)		Number Graduates (1983-84) Ac. Year)	
		Average	Total	Average	Total
SOCIAL WORK PROGRAMS					
MSW	11	172.9	1902.0	71.8	790.0
Ph.D.	2	18.0	36.0	4.5	9.0
DSW	3	36.6	110.0	6.6	20.0
Total	16	128.0	2048.0	51.1	819.0
NURSING PROGRAMS					
MA/MS (Unspecified)	13	38.8	505.0	8.9	116.0
MN/MSN	9	38.0	342.0	8.7	79.0
Ph.D.	1	7.0	7.0	.0	.0
Total	23	37.1	854.0	8.4	195.0
PSYCHOLOGY PROGRAMS					
MA/MS (Unspecified)	28	31.5	884.0	9.8	276.0
MA Counseling Psychology	3	83.3	250.0	13.3	40.0
MA Clinical Psychology	3	164.0	492.0	5.6	17.0
MA Marriage/Family Cnslng	1	40.0	40.0	20.0	20.0
MA School Psychology	1	20.0	20.0	4.0	4.0
MA Guidance Counseling	1	40.0	40.0	6.0	6.0
M.Ed.	2	25.0	50.0	10.0	20.0
Ph.D.	30	66.5	1995.0	10.1	305.0
Psy.D.	4	49.2	197.0	10.5	42.0
Total	73	54.3	3968.0	10.0	730.0
PSYCHIATRY RESIDENCY PROGRAMS	8	32.4	259.0*	7.8	62.0**

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* Full residency slots.
** Estimated from number of residents in fourth year of residency.

Table 8

Percent of Core Discipline Students and Staff

	Percent of Students		Relative Proportion of Graduate Professionals in Workforce				
			*All Facilities Reporting to NIMH	State and Co. Hospitals		Community MHCs	
Discipline	Enrolled	Graduated		*National NIMH	**Western States WICHE	*National NIMH	**Western States WICHE
Social Work (M.A./M.S.W.+)	28.3%	44.4%	37.9%	28.9%	49.2%	44.0%	43.3%
Nursing (M.A./M.S.+)	10.6%	9.5%	9.7%	16.3%	5.1%	5.4%	4.5%
Psychology (Ph.D./Psy.D.)	28.9%	18.0%	14.3%	10.3%	16.4%	16.7%	20.9%
Psychology (M.A./M.S.)	23.4%	19.8%	12.2%	12.8%	8.7%	16.6%	18.3%
Psychiatry	8.7%	8.2%	25.9%	31.8%	20.5%	17.3%	13.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

*Source: Percentages in these columns are derived from National Institute of Mental Health, Division of Biometry and Epidemiology, unpublished data from Inventory of Mental Health Facilities, 1978. Reprinted in National Institute of Mental Health. *Mental Health, United States 1983*, Taube, C.A., and Barrett, S.A., eds. DHHS Pub. No. (ADM)83-1275, Rockville, Md.: the Institute, 1983.

**Source: Percentages in these columns are derived from the WICHE Mental Health Human Resource Data Base which contains data from nine states which surveyed staff in state hospitals and state-supported community facilities in 1981.

Table 9

Program Size by State

Discipline	Number of Programs	Students Enrolled Fall, 1984			Students Graduated 1983-4 Academic Year		
		Average	Total	Range	Average	Total	Range
Alaska	2	19.5	39	14 - 25	6.5	13	4 - 9
Arizona	3	104.6	314	3 -287	17.6	53	3 - 44
California	35	100.4	3517	0 -475	21.7	762	0 -112
Colorado	9	77.8	701	17 -282	23.6	213	0 -108
Hawaii	3	41.3	124	26 - 52	11.3	34	4 - 25
Idaho	1	27.0	27	27 - 27	6.0	6	6 - 6
Montana	2	25.0	50	13 - 37	4.5	9	1 - 8
New Mexico	4	54.0	216	35 - 80	20.5	82	5 - 50
Nevada	2	13.5	27	0 - 27	5.0	10	0 - 10
Oregon	5	90.0	450	25 -225	33.2	166	5 - 73
Utah	9	68.8	620	0 -283	16.3	147	0 - 75
Washington	10	73.1	731	9 -329	24.7	247	0 -158
Wyoming	2	27.0	54	24 - 30	2.0	4	1 - 3
Total	87	78.9	6870	0 -475	20.0	1746	0 -158

Table 10

Students in Placement for Fall 1984 as a Percentage of Enrollment by Degree and Discipline

		Masters Students			Ph.D. Students			All Students		
Discipline	Number of Programs	Pct. Placed	Number Placed	Number Enrolled	Pct. Placed	Number Placed	Number Enrolled	Pct. Placed	Number Placed	Number Enrolled
Social Work										
(Overall)	(9)	(58.1%)	(1105)	(1902)	(3.4%)	(5)	(146)	(54.2%)	(1110)	(2048)
With MH Special.	6	51.4%	728	1417	4.3%	5	117	47.8%	733	1534
W/O MH Special.	3	77.7%	377	485	-	-	29	73.3%	377	514
Nursing										
(Overall)	(18)	(20.5%)	(174)	(847)	(14.3%)	(1)	(7)	(20.5%)	(175)	(854)
With MH Special.	8	18.6%	77	414	14.3%	1	7	18.5%	78	421
W/O MH Special.	10	22.4%	97	433	-	-	-	22.4%	97	433
Psychology	24	21.5%	381	1776	67.2%	1473	2192	46.7%	1854	3968
Total	51	36.7%	1660	4525	63.1%	1479	2345	45.7%	3139	6870

The total number of psychiatric residents reported by the eight Psychiatry programs responding was 259.

Table 11

Percent of Each Discipline's Field Placements by Type of Placement

Discipline	State Hospitals	Mental Health Centers	Other Mental Health Agencies	All State-Supported Mental Health Facilities
Social Work Overall N = 9	3.1%	15.1%	7.6%	25.8%
Social Work With MH Track N = 6	(2.8%)	(18.4%)	(9.8%)	(31.0%)
Social Work Without MH Track N = 3	(4.0%)	(6.4%)	(1.9%)	(12.2%)
Nursing Overall N = 13	3.7%	17.9%	13.8%	35.3%
Nursing With MH Track N = 7	(2.1%)	(26.9%)	(19.3%)	(48.3%)
Nursing Without MH Track N = 6	(6.8%)	(.0%)	(2.7%)	(9.6%)
Psychology N = 41	4.0%	18.8%	7.8%	30.6%
Psychiatry N = 8	34.0%	13.9%	4.6%	52.5%
Average all disciplines	5.9%	16.9%	7.9%	30.7%
N =	71.0	71.0	71.0	71.0

Table 12

Average Percent of Graduates Employed in State-Supported Mental Health Agencies by Program Discipline

Discipline	Number of Programs	Average Percent Employed
Social Work	4	22.5%
Nursing	8	24.3%
Psychology	39	28.9%
Psychiatry	3	23.3%
Total	54	27.5%

Table 13

Graduate Preparation for Working With CMI by Discipline

Discipline	1 Average Quality of Prep.	2 Average Role or Priority	3 Average Level of Intrst.	Percent Course /Exp. Avail.	Average Percent Course /Exp. Reqd.	Percent of Students Trained	4 CMI Prep. Summary Score
Social Work (Overall)	2.6	3.4	3.4	90.9	18.1	22.7	11.9
N =	11.0	11.0	11.0	11.0	11.0	8.0	11.0
Social Work With MH Track	2.5	3.4	3.4	100.0	.0	24.4	12.4
N =	7.0	7.0	7.0	7.0	7.0	5.0	7.0
Social Work Without MH Track	2.7	3.5	3.5	75.0	50.0	20.0	11.0
N =	4.0	4.0	4.0	4.0	4.0	3.0	4.0
Nursing (Overall)	2.5	3.0	2.8	55.0	35.0	77.7	10.0
N =	18.0	19.0	19.0	20.0	20.0	9.0	20.0
Nursing With MH Track	3.0	3.6	3.2	81.8	63.6	92.8	12.3
N =	11.0	10.0	11.0	11.0	11.0	7.0	11.0
Nursing Without MH Track	1.8	2.3	2.3	22.2	.0	25.0	7.3
N =	7.0	9.0	8.0	9.0	9.0	2.0	9.0
Psychology	2.3	2.5	2.5	67.2	43.6	73.7	9.8
N =	54.0	55.0	55.0	55.0	55.0	33.0	55.0
Psychiatry	3.6	3.6	3.1	75.0	75.0	100.0	13.3
N =	8.0	8.0	7.0	8.0	8.0	6.0	8.0
Total	2.5	2.8	2.7	68.0	41.4	69.9	10.4
N =	91.0	93.0	92.0	94.0	94.0	56.0	94.0

1. Where 1 = Poor, 2 = Fair, 3 = Good, and 4 = Excellent.
2. Where 1 = Not our role, 2 = Low priority, 3 = Medium priority, and 4 = High priority.
3. Where 1 = None, 2 = Low, 3 = Medium, and 4 = High.
4. See text for details of how Preparation Summary Scores were created.

Table 14

Graduate Preparation for Working With Severely Disturbed Children and Youth by Discipline

Discipline	1 Average Quality of Prep.	2 Average Role or Priority	3 Average Level of Intrst.	Percent Course /Exp. Avail.	Average Percent Course /Exp. Reqd.	Percent of Students Trained	4 Child Prep. Summary Score
Social Work (Overall)	2.9	3.3	3.6	81.8	9.0	30.1	12.3
N =	11.0	11.0	11.0	11.0	11.0	7.0	11.0
Social Work With MH Track	2.7	3.4	3.7	85.7	.0	31.2	12.4
N =	7.0	7.0	7.0	7.0	7.0	4.0	7.0
Social Work Without MH Track	3.2	3.2	3.5	75.0	25.0	28.6	12.2
N =	4.0	4.0	4.0	4.0	4.0	3.0	4.0
Nursing Overall	1.9	2.3	2.6	35.0	10.0	38.7	7.8
N =	17.0	20.0	19.0	20.0	20.0	4.0	20.0
Nursing With MH Track	2.4	2.8	3.0	63.6	18.1	38.7	9.7
N =	10.0	11.0	11.0	11.0	11.0	4.0	11.0
Nursing Without MH Track	1.2	1.7	2.1	.0	.0	.0	5.5
N =	7.0	9.0	8.0	9.0	9.0	.0	9.0
Psychology	2.6	3.0	3.1	70.9	29.0	59.0	11.1
N =	54.0	55.0	55.0	55.0	55.0	33.0	55.0
Psychiatry	2.5	3.0	2.7	75.0	50.0	82.0	10.9
N =	7.0	8.0	7.0	8.0	8.0	5.0	8.0
Total	2.5	2.9	3.0	64.8	24.4	55.5	10.5
N =	89.0	94.0	92.0	94.0	94.0	49.0	94.0

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1. Where 1 = Poor, 2 = Fair, 3 = Good, and 4 = Excellent.
2. Where 1 = Not our role, 2 = Low priority, 3 = Medium priority, and 4 = High priority.
3. Where 1 = None, 2 = Low, 3 = Medium, and 4 = High.
4. See text for details of how Preparation Summary Scores were created.

Table 15

Graduate Preparation for Working With Elderly Populations by Discipline

Discipline	1 Average Quality of Prep.	2 Average Role or Priority	3 Average Level of Intrst.	Percent Course /Exp. Avail.	Average Percent Course /Exp. Reqd.	Percent of Students Trained	4 ELD Prep. Summary Score
Social Work (Overall)	2.7	3.6	3.6	63.6	.0	19.2	11.8
N =	11.0	11.0	11.0	11.0	11.0	5.0	11.0
Social Work With (MH Track)	2.5	3.7	3.5	85.7	.0	14.0	12.1
N =	7.0	7.0	7.0	7.0	7.0	4.0	7.0
Social Work Without (MH Track)	3.0	3.5	3.7	25.0	.0	40.0	11.2
N =	4.0	4.0	4.0	4.0	4.0	1.0	4.0
Nursing (Overall)	2.7	3.3	3.3	65.0	15.0	36.1	10.8
N =	18.0	20.0	19.0	20.0	20.0	9.0	20.0
Nursing With MH Track	2.8	3.3	3.2	90.9	27.2	40.8	11.4
N =	11.0	11.0	11.0	11.0	11.0	6.0	11.0
Nursing Without MH Track	2.5	3.2	3.3	33.3	.0	26.6	10.1
N =	7.0	9.0	8.0	9.0	9.0	3.0	9.0
Psychology	2.2	2.8	2.9	56.3	5.4	27.1	9.7
N =	53.0	55.0	55.0	55.0	55.0	26.0	55.0
Psychiatry	2.8	3.5	3.1	50.0	37.5	82.5	11.4
N =	7.0	8.0	7.0	8.0	8.0	4.0	8.0
Total	2.4	3.0	3.1	58.5	9.5	33.0	10.3
N =	89.0	94.0	92.0	94.0	94.0	44.0	94.0

1. Where 1 = Poor, 2 = Fair, 3 = Good, and 4 = Excellent.
2. Where 1 = Not our role, 2 = Low priority, 3 = Medium priority, and 4 = High priority.
3. Where 1 = None, 2 = Low, 3 = Medium, and 4 = High.
4. See text for details of how Preparation Summary Scores were created.

Table 16

Graduate Preparation for Working With Ethnic Minorities by Discipline

Discipline	[1] Average Quality of Prep.	[2] Average Role or Priority	[3] Average Level of Intrst.	Percent Course /Exp. Avail.	Percent Course /Exp. Reqd.	Average Percent of Students Trained	[4] ETH Prep. Summary Score
Social Work Overall	2.9	3.7	3.6	81.8	27.2	26.4	12.3
N =	11.0	11.0	11.0	11.0	11.0	7.0	11.0
Social Work With MH Track	2.8	3.5	3.4	85.7	28.5	32.5	12.0
N =	7.0	7.0	7.0	7.0	7.0	4.0	7.0
Social Work Without MH Track	3.0	4.0	4.0	75.0	25.0	18.3	13.0
N =	4.0	4.0	4.0	4.0	4.0	3.0	4.0
Nursing Overall	2.6	2.9	2.8	50.0	25.0	78.5	9.9
N =	17.0	19.0	19.0	20.0	20.0	7.0	20.0
Nursing With MH Track	2.8	2.9	2.9	72.7	45.4	100.0	10.8
N =	10.0	10.0	11.0	11.0	11.0	5.0	11.0
Nursing Without MH Track	2.4	3.0	2.8	22.2	.0	25.0	8.9
N =	7.0	9.0	8.0	9.0	9.0	2.0	9.0
Psychology	2.8	3.3	3.2	72.7	40.0	67.4	11.8
N =	53.0	55.0	55.0	55.0	55.0	35.0	55.0
Psychiatry	2.6	3.1	2.2	62.5	50.0	90.0	10.6
N =	8.0	8.0	7.0	8.0	8.0	5.0	8.0
Total	2.7	3.2	3.1	68.0	36.1	65.6	11.3
N =	89.0	93.0	92.0	94.0	94.0	54.0	94.0

1. Where 1 = Poor, 2 = Fair, 3 = Good, and 4 = Excellent.
2. Where 1 = Not our role, 2 = Low priority, 3 = Medium priority, and 4 = High priority.
3. Where 1 = None, 2 = Low, 3 = Medium, and 4 = High.
4. See text for details of how Preparation Summary Scores were created.

Table 17

Graduate Preparation for Working With Mentally Ill Offender Populations by Discipline

Discipline	Average Quality of Prep.[1]	Average Role or Priority[2]	Average Level of Intrst.[3]	Percent Course /Exp. Avail.	Percent Course /Exp. Reqd.	Average Percent of Students Trained	MIO Prep. Summary Score[4]
Social Work Overall	1.8	2.5	2.6	45.4	9.0	14.3	7.9
N =	11.0	11.0	10.0	11.0	11.0	3.0	11.0
Social Work With MH Track	1.7	2.5	2.6	57.1	.0	11.5	8.3
N =	7.0	7.0	6.0	7.0	7.0	2.0	7.0
Social Work Without MH Track	2.0	2.5	2.5	25.0	25.0	20.0	7.2
N =	4.0	4.0	4.0	4.0	4.0	1.0	4.0
Nursing Overall	1.6	2.1	1.9	30.0	.0	30.0	6.2
N =	17.0	20.0	19.0	20.0	20.0	2.0	20.0
Nursing With MH Track	1.7	2.1	2.0	45.4	.0	20.0	6.6
N =	10.0	11.0	11.0	11.0	11.0	1.0	11.0
Nursing Without MH Track	1.5	2.1	1.7	11.1	.0	40.0	5.7
N =	7.0	9.0	8.0	9.0	9.0	1.0	9.0
Psychology	2.1	2.3	2.3	43.6	12.7	33.8	8.1
N =	54.0	55.0	54.0	55.0	55.0	21.0	55.0
Psychiatry	1.5	2.0	2.1	62.5	25.0	57.5	7.5
N =	7.0	8.0	7.0	8.0	8.0	4.0	8.0
Total	1.9	2.2	2.3	42.5	10.6	34.7	7.6
N =	89.0	94.0	90.0	94.0	94.0	30.0	94.0

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1. Where 1 = Poor, 2 = Fair, 3 = Good, and 4 = Excellent.
2. Where 1 = Not our role, 2 = Low priority, 3 = Medium priority, and 4 = High priority.
3. Where 1 = None, 2 = Low, 3 = Medium, and 4 = High.
4. See text for details of how Preparation Summary Scores were created.

Table 18

Graduate Preparation for Working With Alcohol and Drug Abusers by Discipline

Discipline	1 Average Quality of Prep.	2 Average Role or Priority	3 Average Level of Intrst.	Percent Course /Exp. Avail.	Percent Course /Exp. Reqd.	Average Percent of Students Trained	4 Alc/Drug Prep. Summary Score
Social Work Overall	2.9	3.0	3.1	90.9	9.0	34.1	11.8
N =	11.0	11.0	11.0	11.0	11.0	7.0	11.0
Social Work With MH Track	2.7	3.2	3.1	100.0	14.2	38.7	12.0
N =	7.0	7.0	7.0	7.0	7.0	4.0	7.0
Social Work Without MH Track	3.2	2.7	3.2	75.0	.0	28.0	11.5
N =	4.0	4.0	4.0	4.0	4.0	3.0	4.0
Nursing Overall	2.3	2.8	2.6	35.0	15.0	88.0	8.8
N =	17.0	19.0	19.0	20.0	20.0	5.0	20.0
Nursing With MH Track	2.4	3.0	2.6	54.5	27.2	100.0	9.5
N =	10.0	10.0	11.0	11.0	11.0	4.0	11.0
Nursing Without MH Track	2.2	2.7	2.6	11.1	.0	40.0	7.9
N =	7.0	9.0	8.0	9.0	9.0	1.0	9.0
Psychology	2.5	3.0	3.0	60.0	12.7	37.8	10.5
N =	54.0	55.0	54.0	55.0	55.0	30.0	55.0
Psychiatry	2.5	3.2	2.7	62.5	37.5	70.0	10.5
N =	7.0	8.0	7.0	8.0	8.0	5.0	8.0
Total	2.5	3.0	2.9	58.5	14.8	46.0	10.3
N =	89.0	93.0	91.0	94.0	94.0	47.0	94.0

1. Where 1 = Poor, 2 = Fair, 3 = Good, and 4 = Excellent.
2. Where 1 = Not our role, 2 = Low priority, 3 = Medium priority, and 4 = High priority.
3. Where 1 = None, 2 = Low, 3 = Medium, and 4 = High.
4. See text for details of how Preparation Summary Scores were created.

Table 19

Quality of Preparation Ratings as a Percent of Program Role/Priority Ratings by Program Discipline and Type of Special Client Group

Discipline	CMI	Severely Disturbed Children/ Youth	Elderly	Racial/ Ethnic Minorities	Mentally Ill Offenders	Alcohol/ Drug Abusers
Social Work	78.7	85.6	75.0	78.0	79.5	97.7
N =	11	11	11	11	11	11
Nursing	87.9	78.2	81.1	89.7	77.3	83.3
N =	18	18	19	17	18	17
Psychology	91.1	88.0	80.4	85.0	95.9	84.2
N =	53	53	52	52	53	53
Psychiatry	100.0	88.0	79.7	82.2	78.5	78.5
N =	8	7	7	8	7	7
Total	89.8	85.7	79.8	84.8	88.7	85.3
N =	90	89	89	88	89	88

Table 20

Average Ratings of Importance of Problems or Barriers Preventing Programs from Giving More Attention to Priority Client Groups by Type of Barrier and Program Discipline

	Type of Barrier							
Program Discipline	Program Philosophy/ Goals	No Faculty Expertise	Student Disinterest	No Cooperation From State Agencies	Licensure Accreditation Requirements	No Time in Curriculum	Faculty Attitudes Values	No Financial Support for Students
Social Work	1.4	2.1	2.0	1.4	1.6	2.3	1.8	2.5
N =	10.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Nursing	1.4	2.1	2.6	1.8	1.5	2.7	1.5	2.5
N =	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Psychology	1.7	2.0	2.1	1.6	1.7	2.5	1.7	2.3
N =	52.0	53.0	53.0	51.0	51.0	54.0	51.0	53.0
Psychiatry	1.6	1.8	2.0	2.1	1.1	2.7	1.6	2.8
N =	6.0	6.0	6.0	6.0	6.0	7.0	6.0	6.0
Total	1.6	2.0	2.2	1.7	1.6	2.5	1.7	2.4
N =	88.0	90.0	90.0	88.0	88.0	92.0	88.0	90.0

Table 21

Average Ratings of Importance of Problems or Barriers Preventing Programs from Giving More Attention to Priority Client Groups by Effort/Preparation Scores for CMI

	Type of Barrier							
Score on CMI Effort/Preparation Scale	Program Philosophy/ Goals	No Faculty Expertise	Student Disinterest	No Cooperation From State Agencies	Licensure Accreditation Requirements	No Time in Currculum	Faculty Attitudes Values	No Financial Support for Students
Low (, 10)	1.8	2.2	2.2	1.6	1.7	2.6	1.8	2.3
N=	36.0	37.0	37.0	36.0	37.0	38.0	36.0	37.0
Medium (10-13.9)	1.6	2.0	2.2	1.6	1.6	2.4	1.7	2.5
N=	32.0	32.0	32.0	31.0	31.0	33.0	31.0	32.0
High (14+)	1.2	1.9	2.2	1.8	1.5	2.5	1.4	2.5
N=	20.0	21.0	21.0	21.0	20.0	21.0	21.0	21.0
Overall	1.6	2.0	2.2	1.7	1.6	2.5	1.7	2.4
N=	88.0	90.0	90.0	88.0	88.0	92.0	88.0	90.0

Table 22

Correlations Between Effort/Preparation Composites and Problem/Barrier Ratings

	Client Group					
Problem/Barrier	CMI	Severely Disturbed Children	Elderly	Racial/ Ethnic Minorities	Mentally Ill Offenders	Alcohol/ Drug Abusers
Expertise of Faculty (N=90)	-.238*	-.238*	-.124	+.031	-.316**	-.268**
Lack of State Agency Cooperation (N=88)	-.016	-.134	+.116	-.068	-.156	-.116
Licensure/Accred. Requirements (N=88)	-.033	-.094	-.003	-.026	-.027	-.034
Program Philosophy/ Goals (N=88)	-.423**	-.342**	-.242**	-.157	-.406**	-.403**
Lack of Time in Curriculum (N=88)	-.154	-.133	-.062	-.094	-.196*	-.236*
Faculty Attitudes/ Values (N=92)	-.229*	+.004	-.188*	+.097	-.246*	-.265**
No Financial Support For Students (N=88)	+.033	-.040	+.029	-.079	-.010	-.117
Student Disinterest (N=90)	-.010	-.155	+.013	-.145	-.088	-.109

* *p*,.05, 1-tailed test
** *p*,.01, 1-tailed test

Table 23

Correlations Between Meeting Goals Scores and Problem/Barrier Ratings

	Client Group					
Problem/Barrier	CMI	Severely Disturbed Children	Elderly	Racial/ Ethnic Minorities	Mentally Ill Offenders	Alcohol/ Drug Abusers
Expertise of Faculty (N=90)	-.040	-.084	-.126	+.054	-.052	-.157
Lack of State Agency Cooperation (N=88)	-.092	-.182	-.015	-.035	-.068	-.171
Program Philosophy/ Goals (N=88)	+.111	+.074	+.190	+.188	+.207	+.120
Licensure/Accred. Requirements (N=88)	-.209*	-.194*	+.019	-.036	-.118	-.147
Lack of Time in Curriculum (N=88)	-.096	-.057	+.047	-.044	-.075	-.135
Faculty Attitudes/ Values (N=92)	-.191*	-.152	-.179	-.191*	-.097	-.281**
No Financial Support For Students (N=88)	-.071	+.043	-.002	+.093	+.040	-.007
Student Disinterest (N=90)	-.120	-.109	-.165	-.124	-.033	-.085

* *p*,.05, 1-tailed test
** *p*,.01, 1-tailed test

Table 24

Percent of "Yes" Responses to Questions Concerning Programs' Preparation of Students to Work in Public Mental Health by Discipline

	Percent of Programs Responding Which Reported Content/Experience in Public Mental Health			
Discipline	Leadership, Management Policy Develop. (Question 20)	Inter-Disciplinary Team (Question 21)	Issues in State Systems (Question 22)	1. Average Public MH Preparation Summary Score
Social Work	87.5%	60.0%	100.0%	2.5
N =	8.0	10.0	10.0	7.0
Nursing	68.4%	56.3%	31.6%	1.5
N =	19.0	16.0	19.0	16.0
Psychology	46.9%	69.6%	37.0%	1.5
N =	49.0	46.0	46.0	39.0
Psychiatry	50.0%	100.0%	57.1%	2.0
N =	8.0	8.0	7.0	7.0
Total	55.9%	68.7%	45.1%	1.6
N =	84.0	80.0	82.0	69.0

1. This summary score is a composite of questions 20, 21, and 22. A score of three indicates a "yes" answer to all three questions and a zero score means the respondent answered "no" or "not sure" to all three questions.

Table 25

Number and Percent of Programs Reporting Topics of Student Research By Discipline

Program Discipline	Programs Reporting Topics	
	Number of Programs	Percent of Programs
Social Work	6	54.5%
Nursing	8	28.6%
Psychology	18	21.1%
Psychiatry	2	22.2%
Total	34	32.7%

Table 26

Responses to Questions Concerning Programs' Working Relationships With the State Mental Health System by Program Discipline

Question	Social Work	Nursing	Psychology	Psychiatry	Total
Working Relationships Initiated by Service Providers					
24 Faculty Serve on State MH Committee	54.5%	4.8%	23.6%	62.5%	26.3%
25 Faculty Serve on CMHC Board	81.8%	38.1%	63.6%	62.5%	60.0%
31 Fac. Provide Serv./ Trg. for State Fac.	90.9%	66.7%	76.4%	87.5%	76.8%
32 (Faculty) Participate in State Trg.	100.0%	66.7%	69.1%	62.5%	71.6%
32 (Students) Participate in State Trg.	81.8%	61.9%	67.3%	62.5%	67.4%
Summary Score	81.8	47.6	60.0	67.5	60.4
Working Relationships Initiated by Higher Education					
26 State Staff Serve on HE Curr./Adv. Comm.	72.7%	42.9%	30.9%	62.5%	41.1%
27 HE Program Gets Feedback from State	90.9%	52.4%	65.5%	62.5%	65.3%
29 State Staff Teach Courses	81.8%	52.4%	60.0%	87.5%	63.2%
30 State Staff Have Adjunct Fac. Status	72.7%	38.1%	47.3%	75.0%	50.5%
Summary Score	79.5	46.4	50.9	71.9	55.0
Overall Working Relationships Summary Score	80.7	47.0	55.5	69.7	57.7
Number of Cases	11	21	55	8	95

Table 27

Services Provided by Faculty Members to State Mental Health Facilities or CMHCs by Type of Service and Discipline

	Social Work	Nursing	Psychology	Psychiatry	Total
Direct Service	20.0%	33.3%	47.1%	75.0%	43.7%
N=	10.0	18.0	51.0	8.0	87.0
Training	90.9%	61.1%	72.5%	75.0%	72.7%
N=	11.0	18.0	51.0	8.0	88.0
Other Consult.	90.9%	60.0%	73.5%	87.5%	73.9%
N=	11.0	20.0	49.0	8.0	88.0

Table 28

Who Supervises Students Working in State-Supported Mental Health Programs? Percent of Programs by Response Category in Each Discipline

Discipline	Faculty Only	Staff Only	Both Faculty and Staff
Social Work N of programs = 10	0.00% 0	50.00% 5	50.00% 5
Nursing N of programs = 16	12.50% 2	6.25% 1	81.25% 13
Psychology N of programs = 48	4.17% 2	18.75% 9	77.08% 37
*Psychiatry N of programs = 7	28.57% 2	0.00% 0	71.43% 5
Total N of programs = 88	7.41% 6	18.52% 15	74.07% 60

*Psychiatry faculty frequently have joint appointments and are, therefore, both faculty and staff.

Table 29

Percent of Respondents Interested in Meeting to Discuss Improving Collaboration Between Higher Education and State Mental Health by Type of Organization and by Program Discipline

	Type of Response			
Group/Discipline	Yes	No	Not Sure	Missing
Own State Mental Health Agency				
Social Work	100.0%	.0%	.0%	.0%
Nursing	61.9%	9.5%	9.5%	19.0%
Psychology	72.7%	3.6%	20.0%	3.6%
Psychiatry	37.5%	12.5%	12.5%	37.5%
Total	70.5%	5.3%	14.7%	9.5%
Direct Service Providers				
Social Work	90.9%	9.1%	.0%	.0%
Nursing	66.7%	9.5%	4.8%	19.0%
Psychology	70.9%	7.3%	18.2%	3.6%
Psychiatry	37.5%	12.5%	12.5%	37.5%
Total	69.5%	8.4%	12.6%	9.5%
Other Mental Health Academic Disciplines				
Social Work	100.0%	.0%	.0%	.0%
Nursing	66.7%	.0%	14.3%	19.0%
Psychology	63.6%	7.3%	25.5%	3.6%
Psychiatry	25.0%	12.5%	25.0%	37.5%
Total	65.3%	5.3%	20.0%	9.5%
Other Mental Health Researchers				
Social Work	90.9%	.0%	9.1%	.0%
Nursing	71.4%	.0%	14.3%	14.3%
Psychology	69.1%	7.3%	18.2%	5.5%
Psychiatry	37.5%	12.5%	12.5%	37.5%
Total	69.5%	5.3%	15.8%	9.5%
WICHE				
Social Work	81.8%	.0%	9.1%	9.1%
Nursing	57.1%	.0%	14.3%	28.6%
Psychology	58.2%	7.3%	23.6%	10.9%
Psychiatry	37.5%	.0%	25.0%	37.5%
Total	58.9%	4.2%	20.0%	16.8%

Note. These percentages are based on 11 Social Work, 21 Nursing, 55 Psychology,and 8 Psychiatry programs.

Figure 1

Figures

Average scores on effort/preparation summary scores by client population and program discipline

○ Social work scores are plotted as open circles.

● Nursing scores are plotted as filled circles.

▲ Psychology scores are plotted as triangles.

■ Psychiatry scores are plotted as squares.

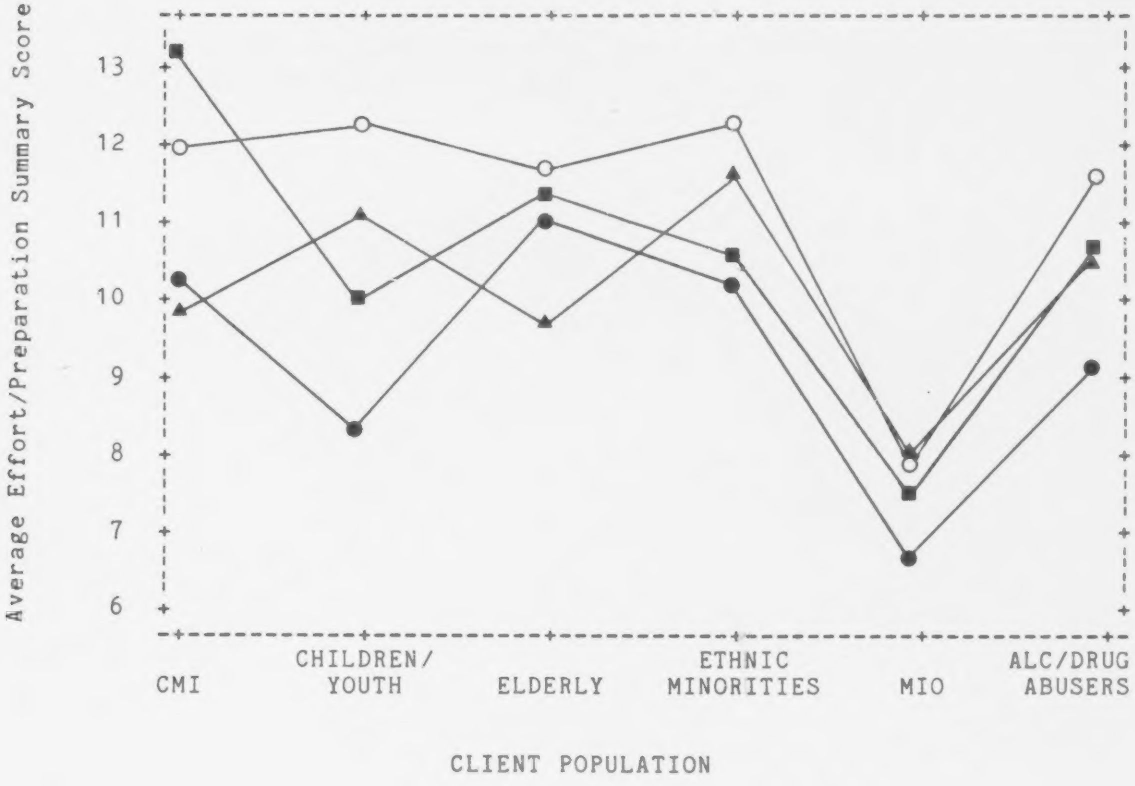


Figure 2

Average Scores for all programs on seven measures of graduate preparation for service to priority client groups by client population

- * Effort/preparation summary scores are plotted as stars.
- □ Role/priority and level of interest in improvement scores are plotted as open squares.
- ■ Percent of students receiving special training is plotted as filled squares.
- △ Percent of programs offering course/experience is plotted as open triangles.
- ● Percent of programs requiring course/experience is plotted as filled circles.
- ○ Quality of preparation scores are plotted as open circles.

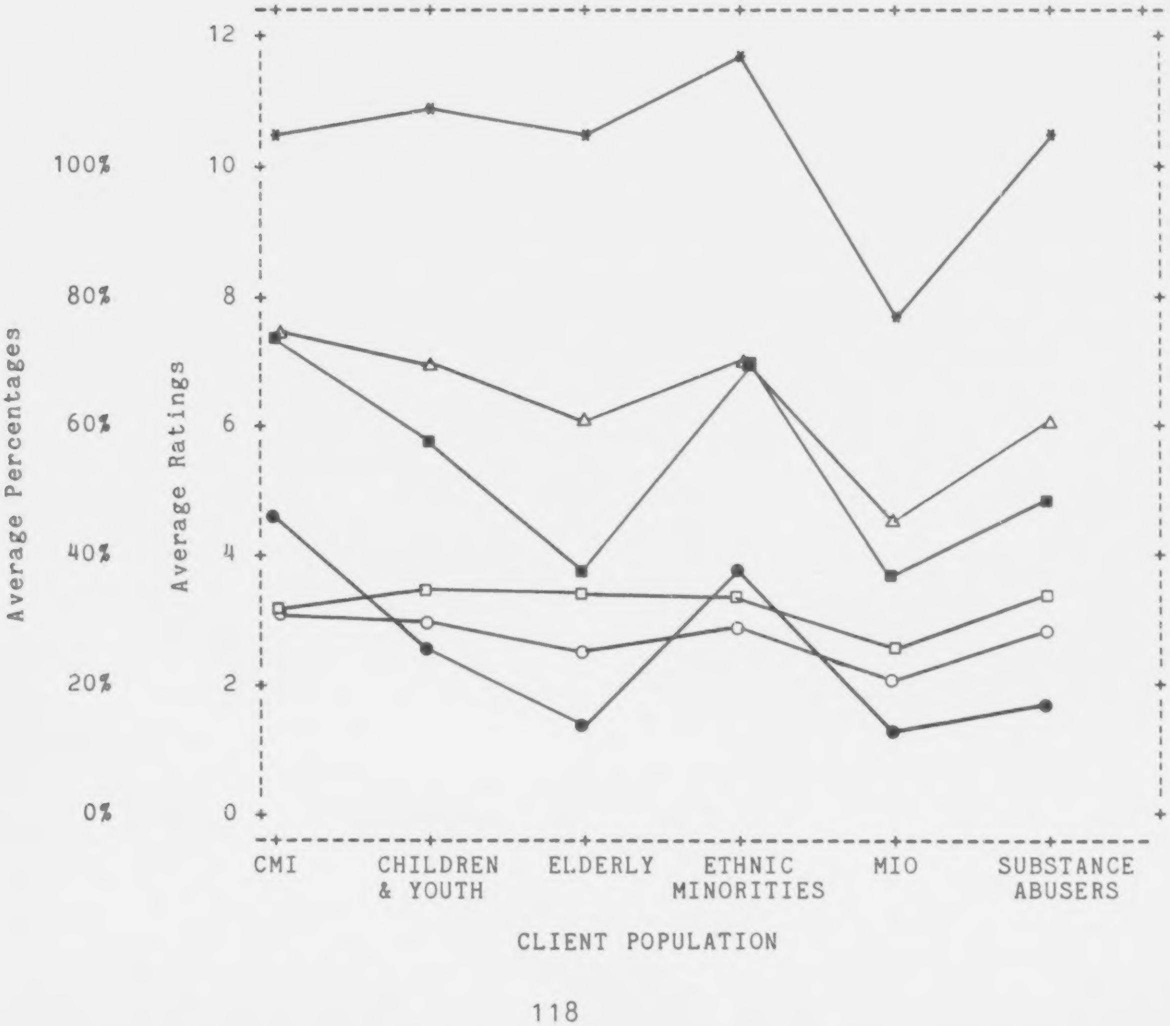


Figure 3

Average Scores for Social Work programs with mental health specialization on seven measures of graduate preparation for service to priority client groups by client population

* Effort/preparation summary scores are plotted as stars.

□ Role/priority and level of interest in improvement scores are plotted as open squares.

■ Percent of students receiving special training is plotted as filled squares.

△ Percent of programs offering course/experience is plotted as open triangles.

● Percent of programs requiring course/experience is plotted as filled circles.

○ Quality of preparation scores are plotted as open circles.

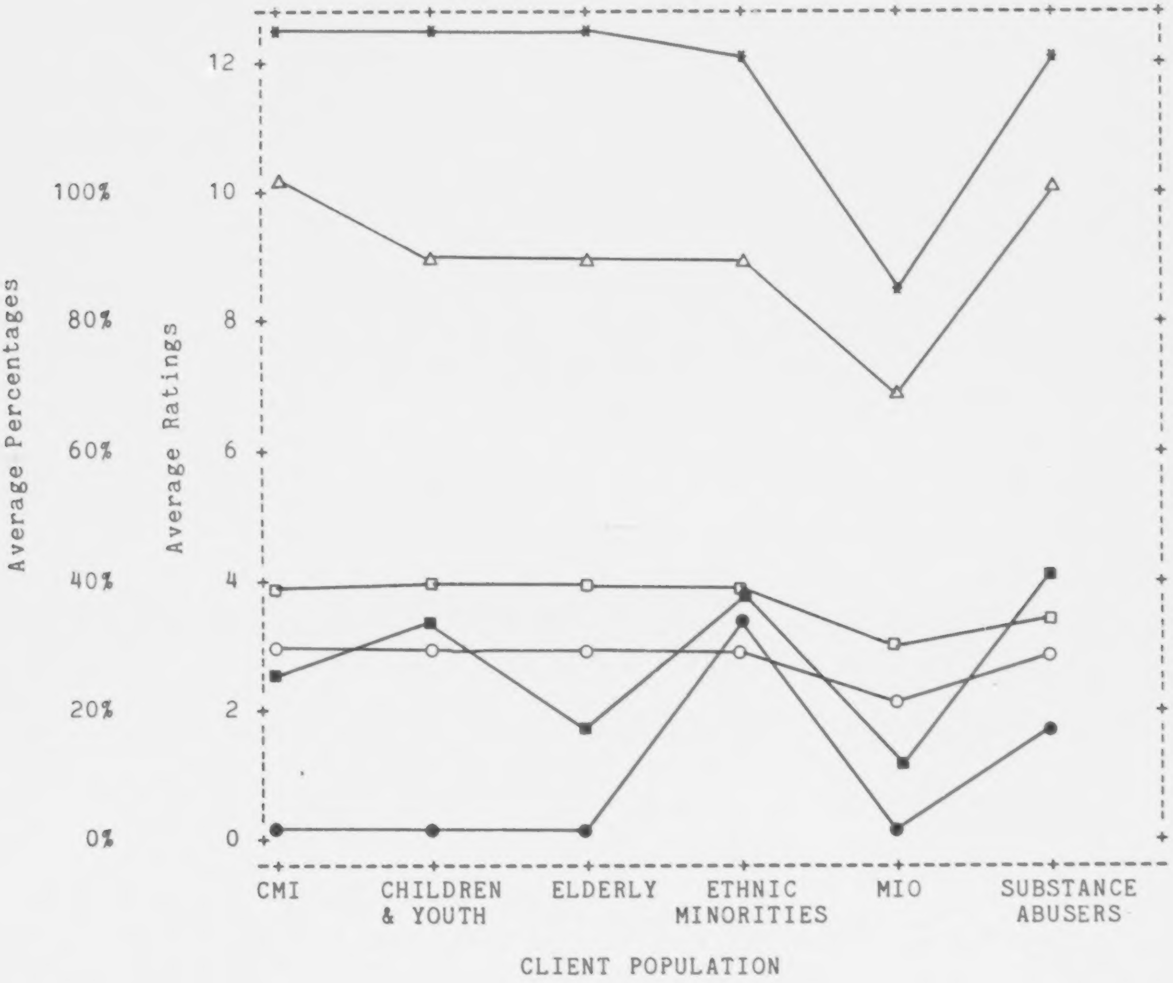


Figure 4

Average Scores for Social Work programs without mental health specialization on seven measures of graduate preparation for service to priority client groups by client population

- * Effort/preparation summary scores are plotted as stars.
- □ Role/priority and level of interest in improvement scores are plotted as open squares.
- ■ Percent of students receiving special training is plotted as filled squares.
- △ Percent of programs offering course/experience is plotted as open triangles.
- ● Percent of programs requiring course/experience is plotted as filled circles.
- ○ Quality of preparation scores are plotted as open circles.

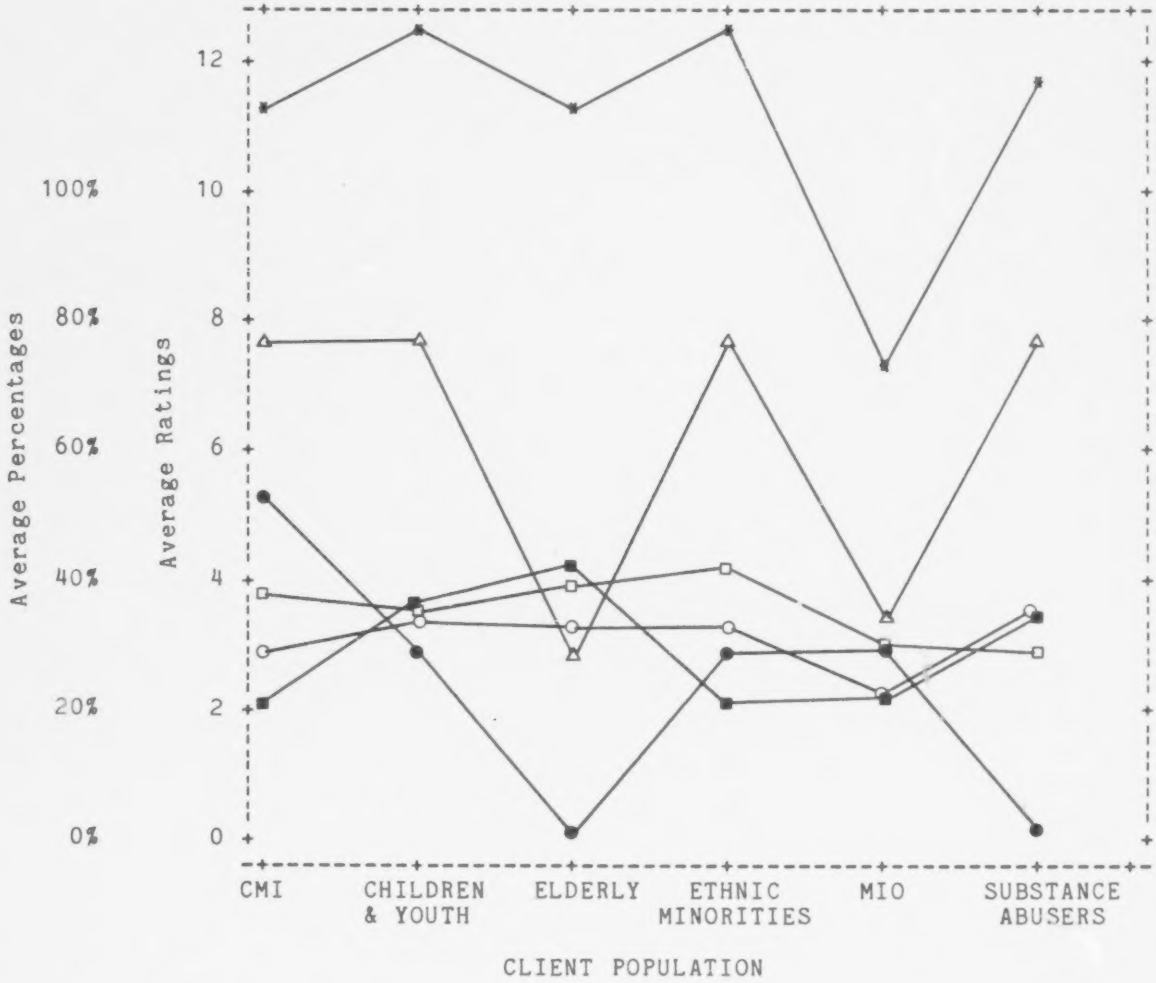


Figure 5

Average Scores for Nursing programs with mental health specialization on seven measures of graduate preparation for service to priority client groups by client population

- * Effort/preparation summary scores are plotted as stars.
- □ Role/priority and level of interest in improvement scores are plotted as open squares.
- ■ Percent of students receiving special training is plotted as filled squares.
- △ Percent of programs offering course/experience is plotted as open triangles.
- ● Percent of programs requiring course/experience is plotted as filled circles.
- ○ Quality of preparation scores are plotted as open circles.

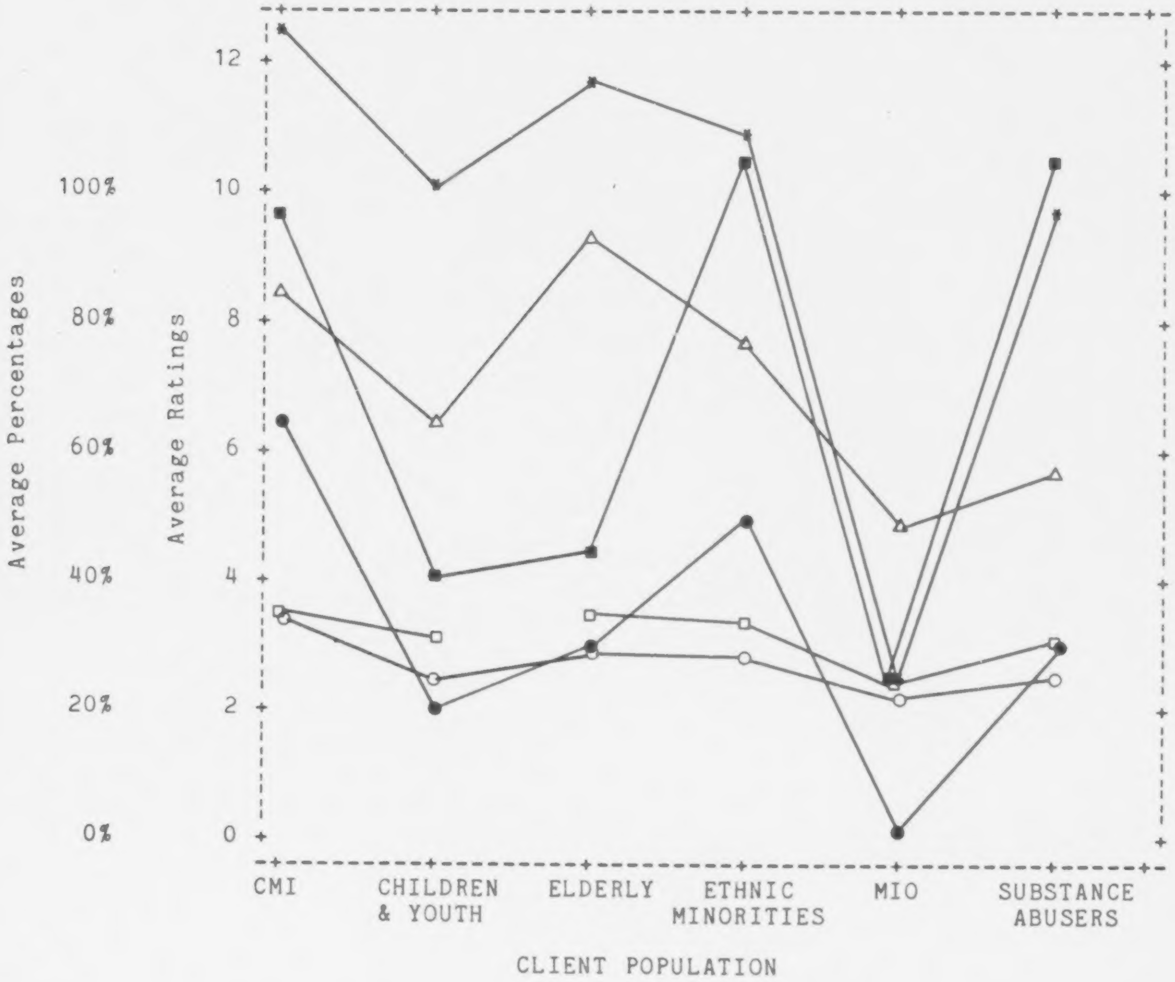


Figure 6

Average Scores for Nursing programs without mental health specialization on seven measures of graduate preparation for service to priority client groups by client population

- * Effort/preparation summary scores are plotted as stars.
- □ Role/priority and level of interest in improvement scores are plotted as open squares.
- ■ Percent of students receiving special training is plotted as filled squares.
- △ Percent of programs offering course/experience is plotted as open triangles.
- ● Percent of programs requiring course/experience is plotted as filled circles.
- ○ Quality of preparation scores are plotted as open circles.

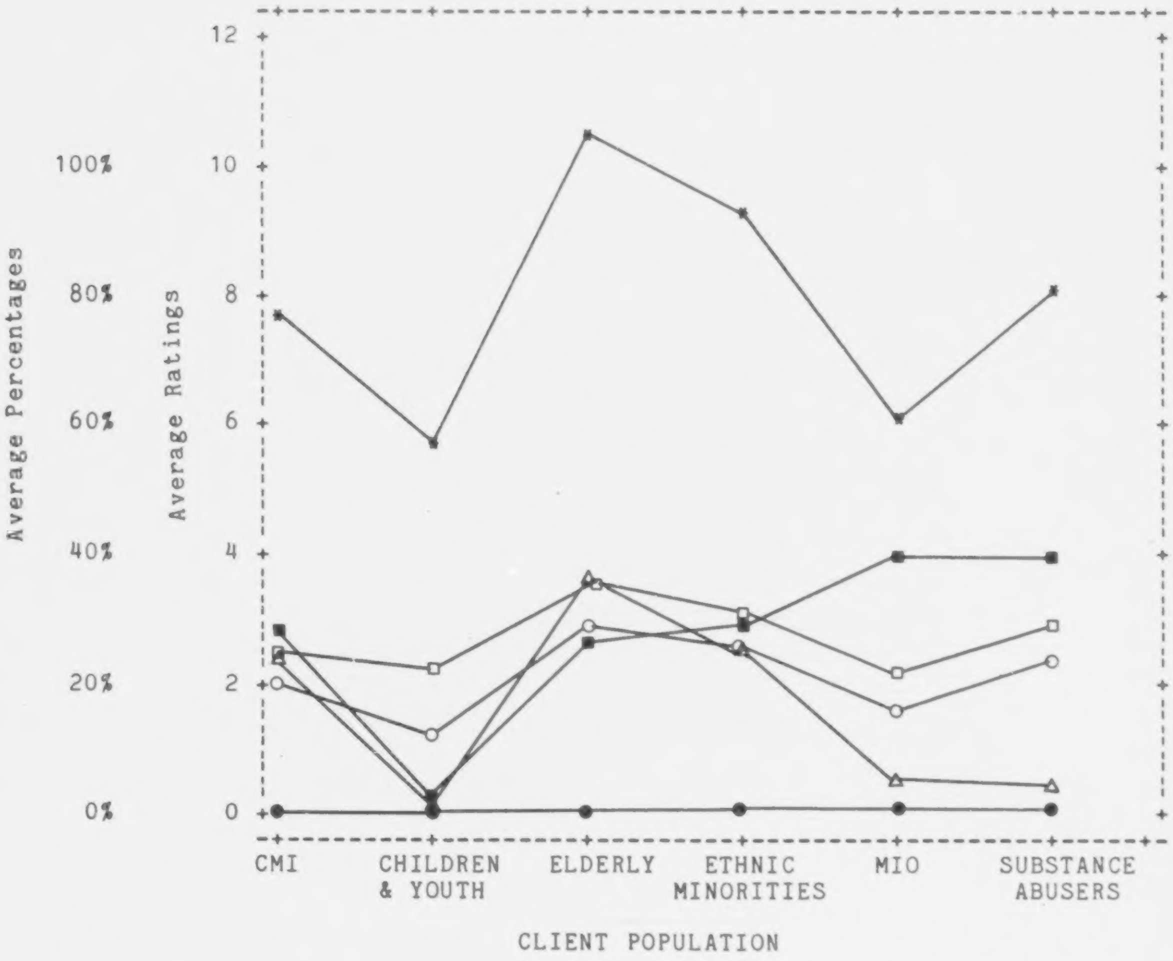


Figure 7

Average Scores for Psychology programs on seven measures of graduate preparation for service to priority client groups by client population

- * Effort/preparation summary scores are plotted as stars.
- □ Role/priority and level of interest in improvement scores are plotted as open squares.
- ■ Percent of students receiving special training is plotted as filled squares.
- △ Percent of programs offering course/experience is plotted as open triangles.
- ● Percent of programs requiring course/experience is plotted as filled circles.
- ○ Quality of preparation scores are plotted as open circles.

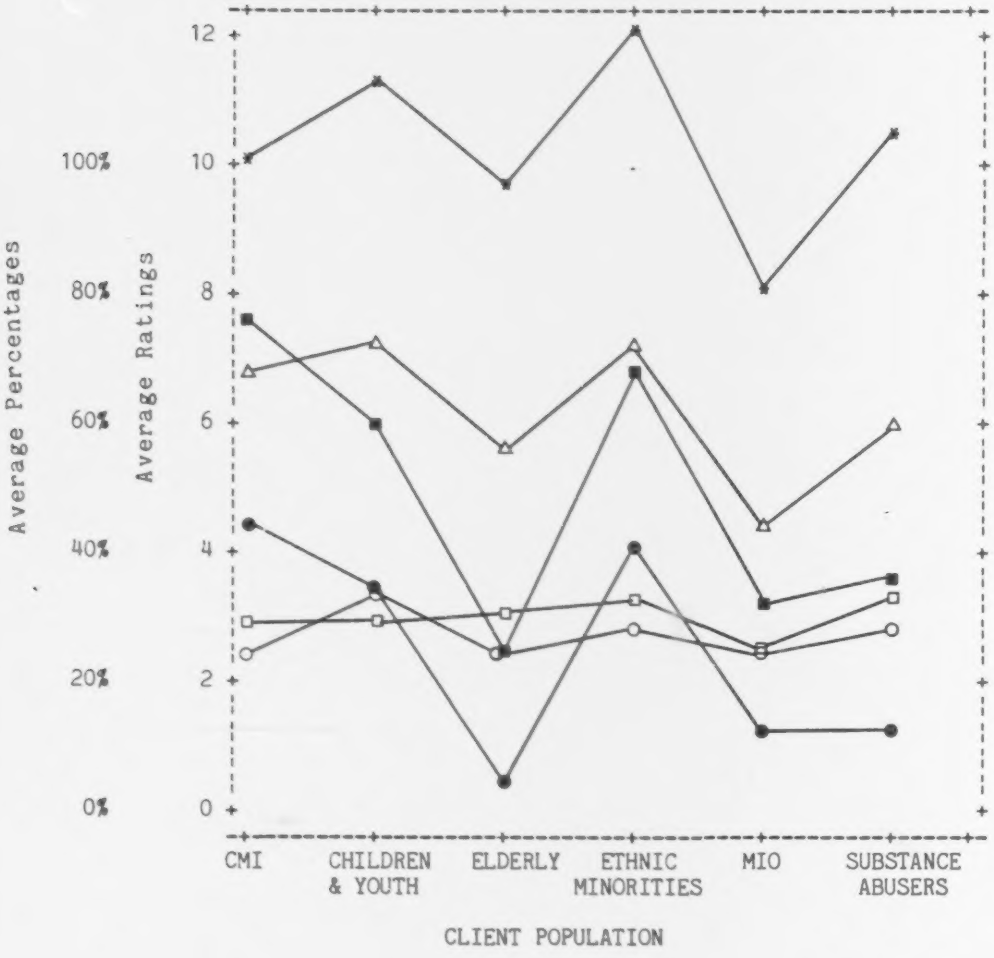


Figure 8

Average Scores for Psychiatry programs on seven measures of graduate preparation for service to priority client groups by client population

✱ Effort/preparation summary scores are plotted as stars.

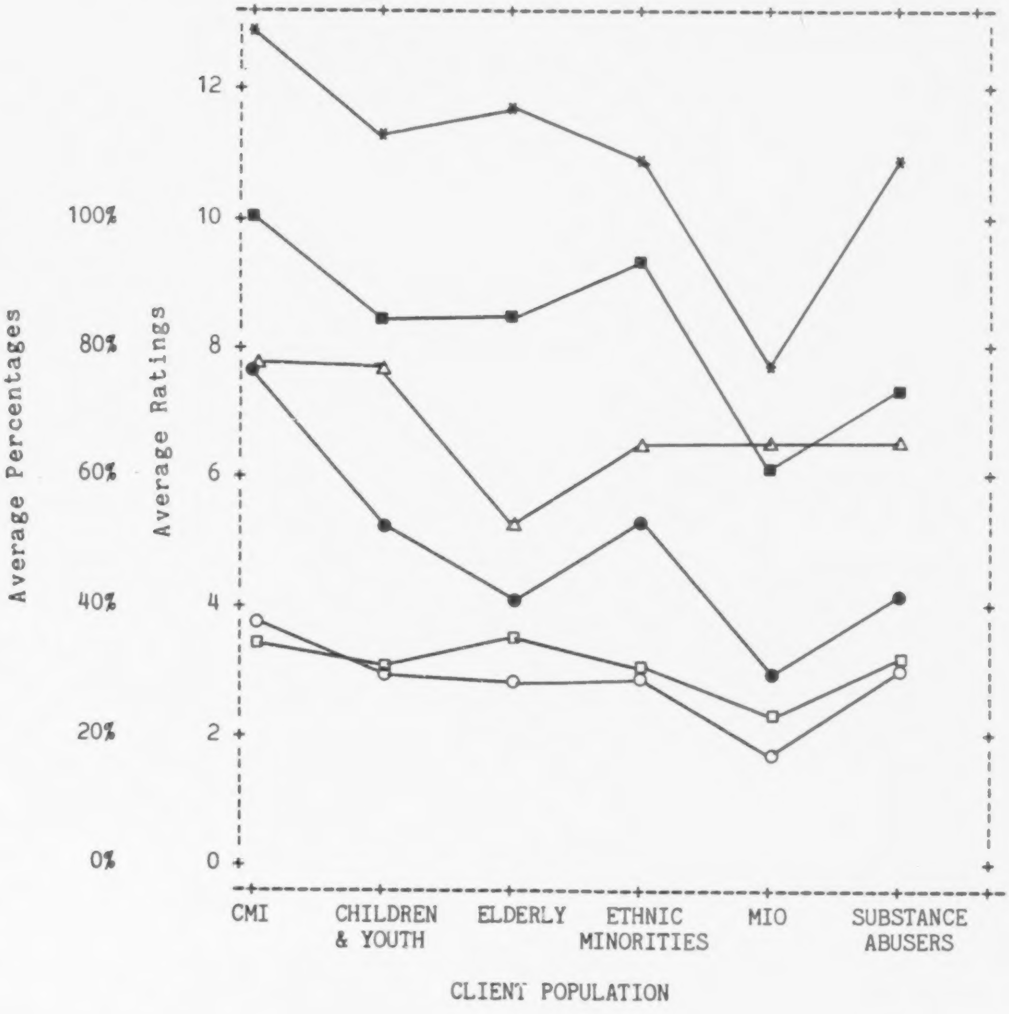
□ Role/priority and level of interest in improvement scores are plotted as open squares.

■ Percent of students receiving special training is plotted as filled squares.

△ Percent of programs offering course/experience is plotted as open triangles.

● Percent of programs requiring course/experience is plotted as filled circles.

○ Quality of preparation scores are plotted as open circles.



Appendix A. Core Discipline Survey Task Force

Mary Patricia Carvalho, M.S.W.
Assoc. Director of Programs
Community Behavioral Services
2916 N. 35th Avenue
Suite 5
Phoenix, AZ 85017
(602) 278-4090

Dorothy DeNiro, R.N., M.S.
Director of Nursing Services
Colorado State Hospital
1600 W. 24th St.
Pueblo, CO 81003
(303) 546-4000

Stephen Dilts, M.D., Ph.D.
Associate Director, Psychiatry
Denver General Hospital
777 Bannock
Denver, CO 80204-4507
(303) 893-7377

Irene Elmer
Program Director
Spanish Peaks Mental Health Ctr.
540 E. Abriendo
Pueblo, CO 81004
(303) 544-6373

Santos H. Hernandez, Ph.D.
Instructor
Graduate School of Social Work
University of Denver
2144 S. High St.
Denver, CO 80206
(303) 753-2886

Steven R. Heyman, Ph.D.
Director
Clinical Psychology Program
University of Wyoming
Box 3415, University Station
Laramie, WY 82071
(307) 766-6718

Ann Hutton, R.N., M.S.
Assistant Professor
University of Utah
College of Nursing
25 S. Medical Drive
Salt Lake City, UT 84112
(801) 581-8278

Jeanne Kearns, R.N., M.S.
Director, Nursing Programs
WICHE
P.O. Drawer P
Boulder, CO 80302
(303) 497-0243

Kathleen Ann Long, R.N., Ph.D.
Assistant Dean
College of Nursing
Montana State University
Sherrick Hall
Bozeman, MT 59717
(406) 994-3783

Gene Shumway, D.S.W.
Professor of Social Work
Brigham Young University
Box 181, SWKT
Provo, UT 84602
(801) 378-3421

Veon G. Smith, Jr., D.S.W.
HRD Specialist
Division of Mental Health
150 W. North Temple, 4th floor
PO Box 2500
Salt Lake City, UT 84103
(801) 533-5783

Eric W. Trupin, Ph.D.
Director, Div. Comm. Psychiatry
University of Washington
Dept. of Psych. and Behav.Science
RP-10
Seattle, WA 98195
(206) 543-7530

Pat Uris, R.N., M.S.
Staff Associate
Nursing Program
WICHE
P.O. Drawer P
Boulder, CO 80302
(303) 497-0249

James Walsh, Ph.D.
Professor
Psychology Department
University of Montana
Missoula, MT 59812
(406) 243-5191

Appendix B. Core Discipline Survey Questionnaire

INSTRUCTIONS

The purpose of this questionnaire is to describe relationships between academic programs which prepare **graduate-level** mental health professionals and **state-supported** mental health facilities.

Definitions

Graduate-level programs - The questionnaire seeks information about your Master's and Doctoral program (or psychiatric residency). Responses to questions about faculty activities or attitudes should, to the extent possible, reflect those of faculty in your Master's and Doctoral programs.

State-supported mental health facilities - Include state and county mental health administrative agencies, state hospitals, and community-level state, county, or private non-profit mental health centers and clinics which receive **state** support in the form of grants, contracts, or purchase of service arrangements. They do **not** include V.A., military, or private hospitals or clinics which do **not** receive state support or facilities which receive state support **only** through Medicaid reimbursement.

We realize you may not have information to respond to all questions. We will appreciate your responding to as much of the questionnaire as possible. Information obtained through the questionnaire will be kept confidential. **In no case will the names of individuals or individual programs be disclosed.**

Please send the completed questionnaire in the enclosed envelope by **November 7.** If you have other relevant materials such as catalog or course outlines, place them in the envelope or send them under separate cover.

I. PROGRAM DESCRIPTION

I. PROGRAM DESCRIPTION

1) Name of your college or university ____

2) Name of your program _______________________________________

3) Address ____

4) Name of respondent ____

5) Title of respondent __________________(6) Phone_________

QUESTIONS 7 and 8 ARE TO BE ANSWERED BY SOCIAL WORK, NURSING, AND PSYCHOLOGY PROGRAMS ONLY. PSYCHIATRY PLEASE SKIP TO QUESTION 9.

7) For each **graduate** degree offered by your program, please tell us **how many students** are currently enrolled (Fall 1984) and **how many graduated** in 1983-84.

Degree	Number Currently Enrolled	No. of Graduates 1983-84 Academic Yr.
______	______	______
______	______	______
______	______	______

8) For each year of study for each graduate degree offered by your program, please tell us (1) **the number of field placements** in which a student is required to participate; (2) the approximate **number of hours** required in each placement; and (3) the approximate **number of students** currently in placement (Fall 1984).

	Year in Program	No. Field Placements During Yr.	No. Hrs. Per Placement Site	No. Students In Placement Fall 1984
Masters	Yr. 1	______	______	______
	Yr. 2	______	______	______
	Yr. 3	______	______	______
Doctorate	Yr. 1	______	______	______
	Yr. 2	______	______	______
	Yr. 3	______	______	______
	Yr. 4	______	______	______
	Total No. of Students in Placement			______

QUESTION 9 IS TO BE ANSWERED BY PSYCHIATRIC RESIDENCY PROGRAMS ONLY. OTHER RESPONDENTS GO ON TO QUESTION 10.

9) For each residency year in your program, please tell us **how many individuals are enrolled** in residency training (Fall 1984); the **number of different residency sites** they must work in during the year; and the approximate **number of hours** they must spend in each residency site.

Year in program	Number of individuals in residency training (Fall 84)	Number of different residency sites during the year	Number of hours in each residency site (approx.)
Year 1	________	________	________
Year 2	________	________	________
Year 3	________	________	________
Year 4	________	________	________
______	________	________	________
Total Residents	________		

10) Of the total number of graduate students or psychiatric residents in placements identified in Question 8 or 9 above, please estimate the number who are currently (Fall 1984) placed in **state-supported** mental health facilities.

No. Placements in State Hospitals _____

No. Placements in State-Supported Mental Health Centers _____

No. Placements in Other State Mental Health Agencies _____

11) Who supervises students/residents working in state-supported mental health programs?

Faculty ____

Agency Staff ____

Both faculty and agency staff ____

12) Do you have information on where your graduates are employed?

Yes ___ No ___

If yes, approximately what percentage of graduates are employed in state-supported mental health agencies? _____

QUESTION 13 IS TO BE ANSWERED BY SOCIAL WORK AND NURSING PROGRAMS ONLY. PSYCHOLOGY AND PSYCHIATRY PLEASE SKIP TO QUESTION 14.

13) Does your program have a mental health and/or psychiatric emphasis, specialization, or track?

Yes ___ No ___

If yes, approximately how many students are currently enrolled (Fall 1984) in this specialization? _____

II. PREPARATION OF GRADUATES TO WORK IN STATE-SUPPORTED MENTAL HEALTH SYSTEM

Most state-supported mental health systems in recent years have established as priorities service to the chronically mentally ill (CMI), severely disturbed children and youth, elderly, racial and ethnic minorities, mentally ill offenders, and alcohol/drug abusers.

14) **How well** do you believe your program is preparing graduates to work with these client groups?

Client Group	Quality of Preparation			
	Poor	Fair	Good	Excellent
Chronically mentally ill				
Severely disturbed children/youth				
Elderly				
Racial/ethnic minorities				
Mentally ill offenders				
Alcohol/drug abusers				

15) To what extent do you see it as your **program's role** to prepare graduates to work with these client groups?

Client Group	Program Role/Priority			
	Not our role	Low priority	Medium priority	High priority
Chronically mentally ill				
Severely disturbed children/youth				
Elderly				
Racial/ethnic minorities				
Mentally ill offenders				
Alcohol/drug abusers				

16) What **interest** do you perceive in your program and faculty at this time in giving more attention to preparing graduates to serve state mental health priority client groups?

Client Group	Level of Interest			
	None	Low	Medium	High
Chronically mentally ill				
Severely disturbed children/youth				
Elderly				
Racial/ethnic minorities				
Mentally ill offenders				
Alcohol/drug abusers				

17) Please indicate any **barriers or problems** which prevent your program from giving more attention to these state priority client groups.

Problem/ Barrier	Degree of Problem/Barrier			
	Not a barrier	Minor barrier	Major barrier	Don't know
Program philosophy, goals				
Expertise of faculty				
Student disinterest				
Lack of cooperation from state agencies				
Licensure/accreditation rrquirements				
Lack of available time in curriculum				
Attitudes, values of faculty				
Lack of financial support for students				
Other (specify)				
Other (specify)				

18) For each of the special psychiatric client populations listed below, please indicate 1) any **special courses** or **field experience** available through your program for preparing graduates to work with the population; 2) whether the course or field experience is **required** , and 3) the **approximate percentage** of students who receive the specialized training. Please attach additional pages if necessary.

Population	Courses/Experience	Required?	% of Students Trained
Chronically Mentally Ill Adults	______ ______ ______	Yes No	______
Severely Disturbed Children/Youth	______ ______ ______	Yes No	______
Elderly with Mental Health Problems	______ ______ ______	Yes No	______
Minorities with Mental Health Problems	______ ______ ______	Yes No	______
Mentally Ill Offenders	______ ______ ______	Yes No	______
Alcohol/Drug Abusers	______ ______ ______	Yes No	______

19) What suggestions do you have for increasing the competencies of your graduates to serve these priority populations?

____
____
____
____
____

20) Does your program include any special course content or field experience to prepare students for **leadership, management**, or **policy development** roles in public mental health?

Yes ___ No ___ Not sure ___

If yes, please describe course(s) or field experience(s). Attach printed descriptions if necessary.

____
____
____

21) Does your curriculum include any special course content or field experience to prepare students for work on an **interdisciplinary** team in a mental health facility or program?

Yes ___ No ___ Not sure ___

If yes, please describe. Attach printed descriptions if necessary.

22) Does your program's curriculum include content on state-supported mental health system **organization, goals, problems**, and **issues**?

Yes ___ No ___ Not sure ___

If yes, please describe. Attach printed descriptions if necessary.

23) From recent student dissertations, theses, or projects required for completion of the graduate degree, please give examples of topics which may be useful to state mental health service providers or administrators (e.g. "Characteristics of Clients Who Terminate After One Visit at XYZ Mental Health Center"; "Survey of Reasons Psychiatrists Leave State Hospital Service").

III. WORKING RELATIONSHIPS WITH THE STATE MENTAL HEALTH SYSTEM

24) Do faculty members in your program serve on your **state mental health agency's** planning or advisory committee?

Yes ___ No ___ Not sure ___

25) Do faculty members in your program serve on a **community mental health center** governing board?

Yes ___ No ___ Not sure ___

26) Does any state mental health agency, state hospital, or CMHC staff member serve on your program's advisory committee, curriculum committee, etc.?

Yes ___ No ___ Not sure ___

27) Does your program have any method of receiving feedback from state mental health facilities concerning the quality or appropriateness of education/training which you offer?

Yes ___ No ___ Not sure ___

If yes, please describe the method or approach used.

____
____
____
____

28) Does your program have contact with state-supported mental health agencies or facilities in states **other than** the state in which your program is located?

Yes ___ No ___ Not sure ___

If yes, please indicate the **states** with which your program has contacts, and indicate the nature of that contact.

States	Type of Contact
______________	______________
______________	______________
______________	______________

29) Does your program utilize staff members from the state mental health agency, state hospital, or community mental health centers to teach courses?

Yes ___ No ___ Not sure ___

30) How many service providers or administrators from the state-supported mental health system, if any, have **adjunct faculty** status in your program? __________

31) Do faculty members from your program provide services, training, or consultation at state mental health facilities or community mental health centers?

	Yes	No	Not sure
Direct service	___	___	___
Training	___	___	___
Other consultation	___	___	___

32) Have faculty members or students in your program attended (as participants) conferences, workshops, etc. sponsored by the state-supported mental health system?

Faculty Yes ___ No ___ Not sure ___

Students Yes ___ No ___ Not sure ___

33) Has your program attempted in the past to **work collaboratively** with the state-supported mental health system?

Yes ___ No ___ Not sure ___

If yes, (1) with what **components** of the state mental health system have you worked? (2) What **problems** have you encountered? (3) What **successes** have you experienced?

34) If there have been problems in working with the state-supported mental health system, what **solutions** would you propose?

35) What are the **first steps** you consider necessary in order to improve relationships between state-supported mental health programs and your own program?

36) Would you be interested in meeting with any or all of the following groups/organizations to discuss **improving collaboration** between higher education and the state-supported mental health system?

Organization/Group	Yes	No	Not Sure
Your state mental health agency			
Direct service providers (e.g., state hospital, CMHC)			
Other mental health academic disciplines			
Other mental health researchers			
WICHE			

IV. HIGHER EDUCATION/SERVICE PROVIDER COLLABORATION IN TRAINING/SERVICES

Educators and service providers in several western states are interested in collaboration models which have been successful in improving services or training. WICHE plans to develop a publication of examples of types of collaboration which other states or programs might wish to adopt or adapt.

37) Has your program, or have individual faculty or students from your program, worked with the state mental health agency or with a state hospital or CMHC in **collaborative projects** to improve services or training in a state facility or to a specific group? If yes, please list:

Title/Purpose of Project	Contact Person

V. UNIVERSITY/STATE MENTAL HEALTH SYSTEM COLLABORATION IN RESEARCH

It has been recommended by a number of service providers, planners, and researchers that WICHE become involved in establishing a research institute or other mechanisms to facilitate collaboration between researchers and state agencies to pursue research on state mental health problems and issues. In order to work effectively in the area we need more information about what has been done or is now being done.

38) Please indicate below any **research** recently conducted, now in progress, or currently being planned or proposed, which (1) investigates state mental health system problems or issues; (2) uses populations or data from state facilities; or (3) has been collaboratively developed between the university and state agencies or facilities.

Research Topic, Title, or Question	Investigator

39) Would your program be interested in a regional conference of researchers, service providers, and administrators on mental health systems research?

Yes ___ No ___ Not sure ___

VI. PLEASE ADD ANY COMMENTS OR SUGGESTIONS NOT ADDRESSED ELSEWHERE IN THE QUESTIONNAIRE

Please send a copy of your catalog of courses and any other printed material which would help us to understand your program's relationships with the state-supported mental health system. You may place it in the enclosed envelope or send it separately.

Please check here if other materials are being sent under separate cover. _____

PLEASE RETURN THIS QUESTIONNAIRE
IN THE ATTACHED SELF-ADDRESSED STAMPED ENVELOPE TO:

Don Moore
WICHE Mental Health and Human Services
P.O. Drawer P
Boulder, CO 80302

Appendix C. Programs Returning Questionnaire

Alaska

College of Nursing/Health Science
University of Alaska
3221 Providence Dr.
Anchorage, AK 99508

Counseling Psychology Program
University of Alaska
3221 Providence Drive
Anchorage, AK 99508

Arizona

School of Social Work
Arizona State University
Tempe, AZ 85287

College of Nursing
Arizona State University
Tempe, AZ 85287

College of Nursing
University of Arizona
Tucson, AZ 85721

Dept. of Counselor Education
Arizona State University
Tempe, AZ 85287

California

Division of Social Work
Calif. State Univ., Sacramento
6000 J Street
Sacramento, CA 95819

School of Social Welfare
Univ. of Calif., Berkeley
Berkeley, CA 94720

UCLA School of Social Welfare
200 Dodd Hall
405 Hilgard Ave.
Los Angeles, CA 90024

Residency Training Program
Univ. of California
Affiliated Hospitals
2615 E. Clinton Ave.
Fresno, CA 93703

Residency Training Program
Loma Linda University
Affiliated Hospitals
Loma Linda, CA 92357

Residency Training Program
UCLA Affiliated Hospitals
UCLA Neuropsychiatric Institute
760 Westwood Plaza
Los Angeles, CA 90024

Residency Training Program
Univ.of California (Davis)
Affiliated Hospitals
2315 Stockton Blvd.
Sacramento, CA 95817

Clinical Psychology Program
Univ. of Calif. at Berkeley
Berkeley, CA 94720

Clinical Psychology Program
Univ. of California (L.A.)
405 Hilgard Ave.
Los Angeles, CA 90024

Clinical Psychology Program
Univ. of Southern Calif.
University Park
Los Angeles, CA 90089

Counseling Psychology Program
Univ. of California
Graduate School of Education
Santa Barbara, CA 93106

School Psychology Program
Univ. of California (Berkeley)
School of Education
Berkeley, CA 94720

School of Nursing
Univ. of California, L.A.
2-256 Louis Factor Bldg.
Los Angeles, CA 90024

Dept. of Nursing
Calif. State Univ., L.A.
5151 State University Drive
Los Angeles, CA 90032

School of Nursing
Azusa Pacific University
Citrus Avenue at Alosta
Azusa, CA 91702

School of Nursing
University of San Diego
Alcala Park
San Diego, CA 92110

School of Nursing
San Diego State University
5300 Campanile Drive
San Diego, CA 92182

School of Nursing
Loma Linda University
Loma Linda, CA 92350

School of Nursing
Univ. of San Francisco
2130 Fulton Street
San Francisco, CA 94117

Dept. of Nursing
San Francisco State Univ.
1600 Holloway
San Francisco, CA 94132

School of Nursing
Univ. of Calif., S.F.
Third Avenue at Parnassus
San Francisco, CA 94143

Dept. of Nursing
Sonoma State University
1801 E. Cotati Ave.
Rohnert Park, CA 94928

Calif. School of Prof. Psychology
1900 Addison St.
Berkeley, CA 94704

Calif. School of Prof. Psychology
1350 M Street
Fresno, CA 93721

Calif. School of Prof. Psychology
3974 Sorrento Valley Blvd.
San Diego, CA 92121

Graduate School of Psychology
Fuller Theological Seminary
177 N. Madison Ave.
Pasadena, CA 91101

Western Grad. School of
Prof. Psychology
4455 E. Charleston
Palo Alto, CA 94306

Clinical Psychology Program
Calif. State Univ., Doming. Hills
1000 E. Victoria St.
Carson, CA 90747

Clinicl Psychology Program
Calif. State Univ., Fullerton
Fullerton, CA 92631

Clinical Psychology Program
Calif. State Univ., Northridge
18111 Nordhoff St.
Northridge, CA 91330

Clin. Psychology Program
Univ. of Calif., S.F.
Box 33-C
401 Parnassus
San Francisco, CA 94143

Counseling Psychology Program
Calif. State College, San Bern.
5500 State College Parkway
San Bernardino, CA 92407

Counseling Psychology Program
Chapman College
333 N. Glassell St.
Orange, CA 92666

Counseling Psychology Dept.
Dominican College of San Rafael
1520 Grand Ave.
San Rafael, CA 94901

Counseling Psychology Program
Humboldt State Univ.
Arcata, CA 95521

Graduate School of Psychology
John F. Kennedy University
370 Camino Pablo
Orinda, CA 94563

Dept. of Psychology
Loyola Marymount Univ.
Loyola Blvd. at W. 80th St.
Los Angeles, CA 90045

Clinical Psychology Program
Pepperdine University
24255 Pacific Coast Highway
Malibu, CA 90265

Clinical Psychology Program
San Jose State University
Washington Square
San Jose, CA 95192

Psychology Dept.
Univ. of La Verne
1950 3rd St.
La Verne, CA 91750

Counseling Psychology Program
Univ. of the Pacific
3601 Pacific Ave.
Stockton, CA 95211

Dept. of Nursing
Calif. State Univ., Long Beach
1250 Bellflower Blvd.
Long Beach, CA 90840

Dept. of Nursing
San Jose State University
1 Washington Square
San Jose, CA 95192

Fielding Institute
2112 Santa Barbara St.
Santa Barbara, CA 93101

Colorado

Graduate School of Social Work
University of Denver
Denver, CO 80208

Clinical Psychology Program
University of Colorado, Boulder
Boulder, CO 80309

Clinical Psychology Program
University of Denver
2300 S. Gaylord St.
Denver, CO 80208-0208

School of Prof. Psychology
University of Denver
Denver, CO 80208

Counseling Psychology Program
Colorado State University
Fort Collins, CO 80523

Social Work Department
Colorado State University
Fort Collins, CO 80523

School of Nursing
University of Colorado
4200 E. 9th Ave.
Denver, CO 80262

Clinical Psychology Program
Univ. of Colo. at Denver
1100 14th St.
Denver, CO 80202

Counseling Psychology Prog.
School of Education
University of Denver
Denver, CO 80208

Dept. of Prof. Psychology
Univ. of Northern Colorado
Greeley, CO 80639

Hawaii

Residency Training Program
Univ. of Hawaii
Affiliated Hospitals
1356 Lusitania Street
Honolulu, HI 06913

Clinical Psychology Program
University of Hawaii
2430 Campus Road
Honolulu, HI 96822

School of Nursing
University of Hawaii at Manoa
2528 The Mall, Webster 416
Honolulu, HI 96822

Hawaii School of Prof. Psychology
2424 Pali Highway
Honolulu, HI 96817

Idaho

Dept. of Nursing
Idaho State University
Campus Box 8101
Pocatello, ID 83209

Nevada

Clinical Psychology Program
University of Nevada, Reno
Rm. 206 MSS
Reno, NV 89557

College of Health Sciences
Univ. of Nevada, Las Vegas
4505 Maryland Parkway
Las Vegas, NV 89154

Orvis School of Nursing
Univ. of Nevada, Reno
Reno, NV 89557

University of Nevada, Las Vegas
Counseling and Educational Psych.
College of Education, UNLV
Las Vegas, NV 89154

New Mexico

Division of Social Work
New Mexico Highlands Univ.
Las Vegas, NM 87701

Residency Training Program
University of New Mexico
Affiliated Hospitals
2400 Tucker, N.E.
Albuquerque, NM 87131

Dept. of Counselor Education
University of New Mexico
Albuquerque, NM 87131

College of Nursing
University of New Mexico
Nursing/Pharmacy Bldg.
Albuquerque, NM 87131

College of Education and Tech.
Eastern NM University
Station 25
Portales, NM 88130

Oregon

School of Social Work
Portland State University
Box 751
Portland, OR 97207

Residency Training Program
Oregon Health Sciences Univ.
Affiliated Hospitals
3181 S.W. Sam Jackson Park Rd.
Portland, OR 97201

School of Nursing
Oregon Health Sciences Univ.
3181 SW Sam Jackson Pk. Rd.
Portland, OR 97201

School of Nursing
University of Portland
5000 N. Willamette Blvd.
Portland, OR 97203

Oregon School of Prof. Psychology
Box 398
Marylhurst, OR 97036

Dept. of Counseling and Guidance
Oregon State Univ./Western Oregon
State College
EH 315, OSU
Corvallis, OR 97331

Montana

Clinical Psychology Program
Dept. of Psychology
University of Montana
Missoula, MT 59812

College of Nursing
Montana State University
Sherrick Hall
Bozeman, MT 59717

Utah

College of Nursing
University of Utah
255 S. Medical Drive
Salt Lake City, UT 84112

Prof.-Scientific Psychol. Program
Utah State University
Logan, UT 84322

Allied Health
Weber State College
Ogden, UT 84408

College of Nursing
Brigham Young University
500 SWKT
Provo, UT 84602

Social Work Dept.
Brigham Young University
Provo, UT 84602

Clinical Psychology Program
Brigham Young University
Provo, UT 84602

School Psychology Program
University of Utah
Dept. of Educational Psychology
Salt Lake City, UT 84112

Residency Training Program
Univ. of Utah
Affiliated Hospitals
50 N. Medical Drive
Salt Lake City, UT 84132

School of Social Work
University of Utah
Salt Lake City, UT 84132

Counseling Psychology Program
University of Utah
Dept. of Educ. Psychology
Salt Lake City, UT 84112

Clinical Psychology Program
University of Utah
Salt Lake City, UT 84112

Washington

Dept. of Psychology
Western Washington Univ.
516 High St.
Bellingham, WA 98225

Dept. of Psychology
Eastern Washington Univ.
Cheney, WA 99004

School of Social Work
University of Washington
4101 15th Avenue, NE
Seattle, WA 98195

Intercollegiate Center for
Nursing Education
W. 2917 Ft. George Wright Dr.
Spokane, WA 99204

Clinical Psychology Program
Washington State University
Pullman, WA 99164-4830

Psychology Department
Seattle University
Seattle, WA 98122

Dept. of Psychiatry and
Behav. Science
RP-10
Seattle, WA 98195

Psychology Department
Pacific Lutheran University
Tacoma, WA 98447

Inland Empire School of
Social Work and Human Services
Eastern Washington University
Cheney, WA 99004

Clinical Psychology Program
University of Washington
Seattle, WA 98195

Dept. of Education & Psychology
Walla Walla College
College Place, WA 99324

Wyoming

Clinical Psychology Program
University of Wyoming
Box 3434, University Station
Laramie, WY 82071

College of Health Sciences
Univ. of Wyoming
Box 3065, Univ. Station
Laramie, WY 82701

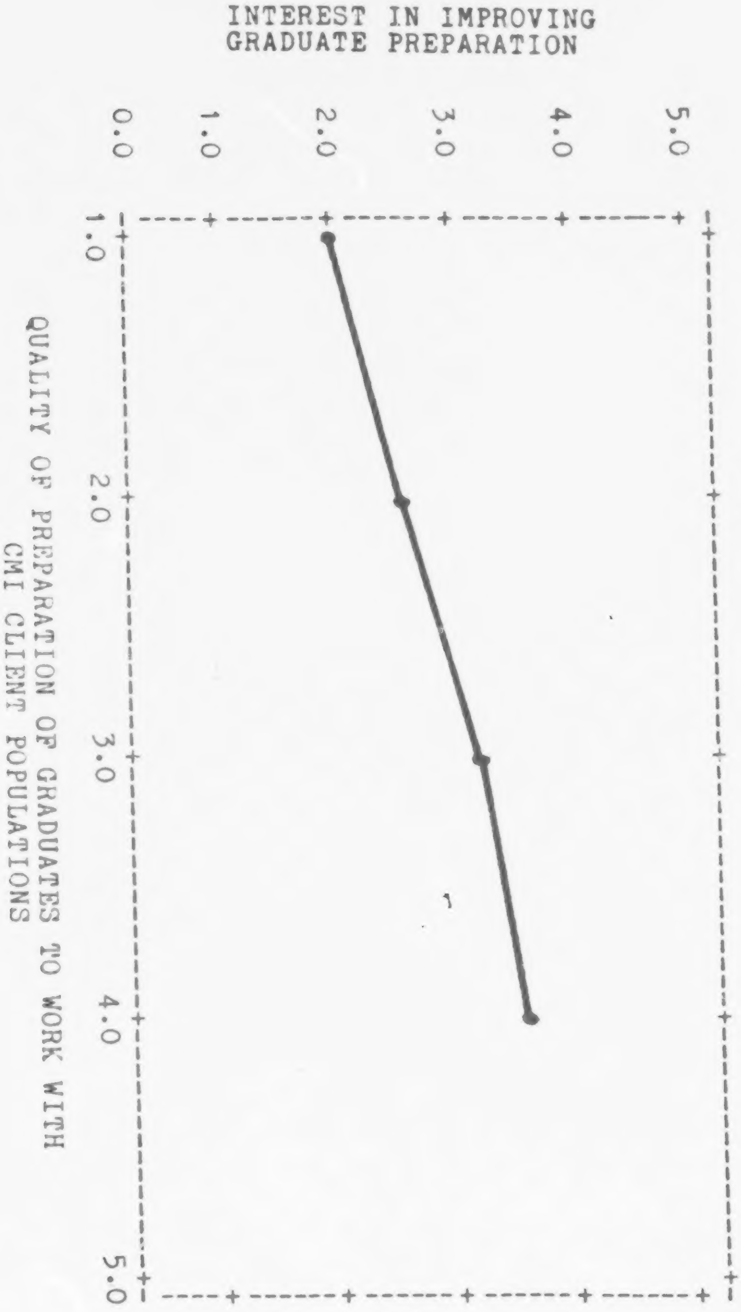
Appendix D. Validity of Effort/Preparation Summary Scores

In examining the validity of the effort/preparation summary scores, an important issue was whether the components of these scales all reflected the amount of effort exerted towards preparing graduates to deal with special client groups. If level of interest, quality of preparation, and priority are all different aspects of effort of preparation, then these measures should be positively correlated. For each client group, the Pearson product moment correlations between quality of preparation and program role/priority and between quality of preparation and programs' level of interest in preparing graduates to work with these client groups were calculated. Both sets of correlations are large, positive, and statistically significant, indicating that they do, indeed measure similar things.

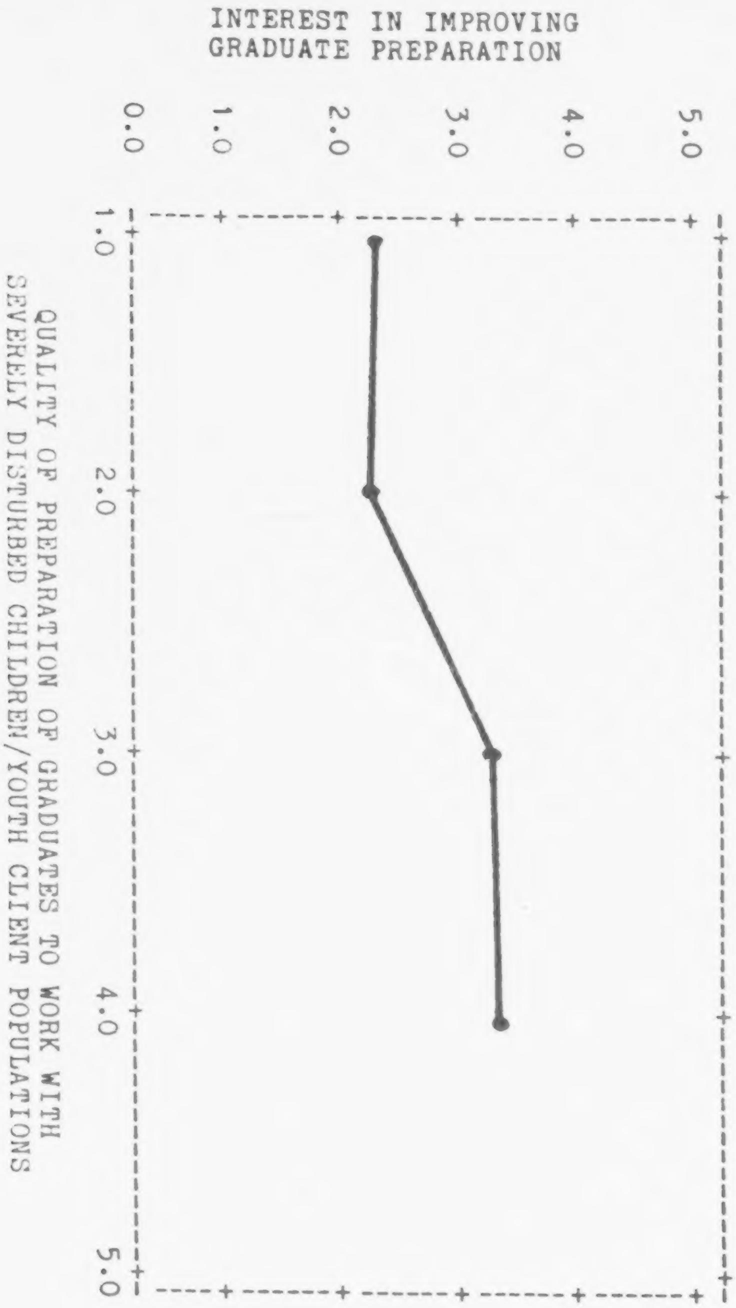
Also, in creating the effort/quality of preparation summary scores, there was concern that it might be inappropriate to sum the interest and preparation scores because those programs already doing a good job of preparing graduates to serve a particular client group might have little interest in further improving the quality of preparation in their programs. If this was the case, programs doing an exceptionally good job preparing graduates, but having little interest in improving the quality of preparation would receive effort/preparation composite scores that would be too low.

In order to see if this "ceiling effect" was occurring, for each client group, programs' average interest in improving graduate preparation was plotted as a function of the quality of preparation of graduates. These plots appear in the following six figures. If there was reason for concern, level of interest would increase with degree of graduate preparation, but would drop off and then decrease at the higher levels of graduate preparation. This is clearly not the case for the client groups of CMI, racial/ethnic minorities, mentally ill offenders, and alcohol and drug abusers, but there is a very slight tendency for a dropoff to occur for for children and for client populations, indicating that the quality/effort of preparation scales may be slightly less sensitive for these two client groups.

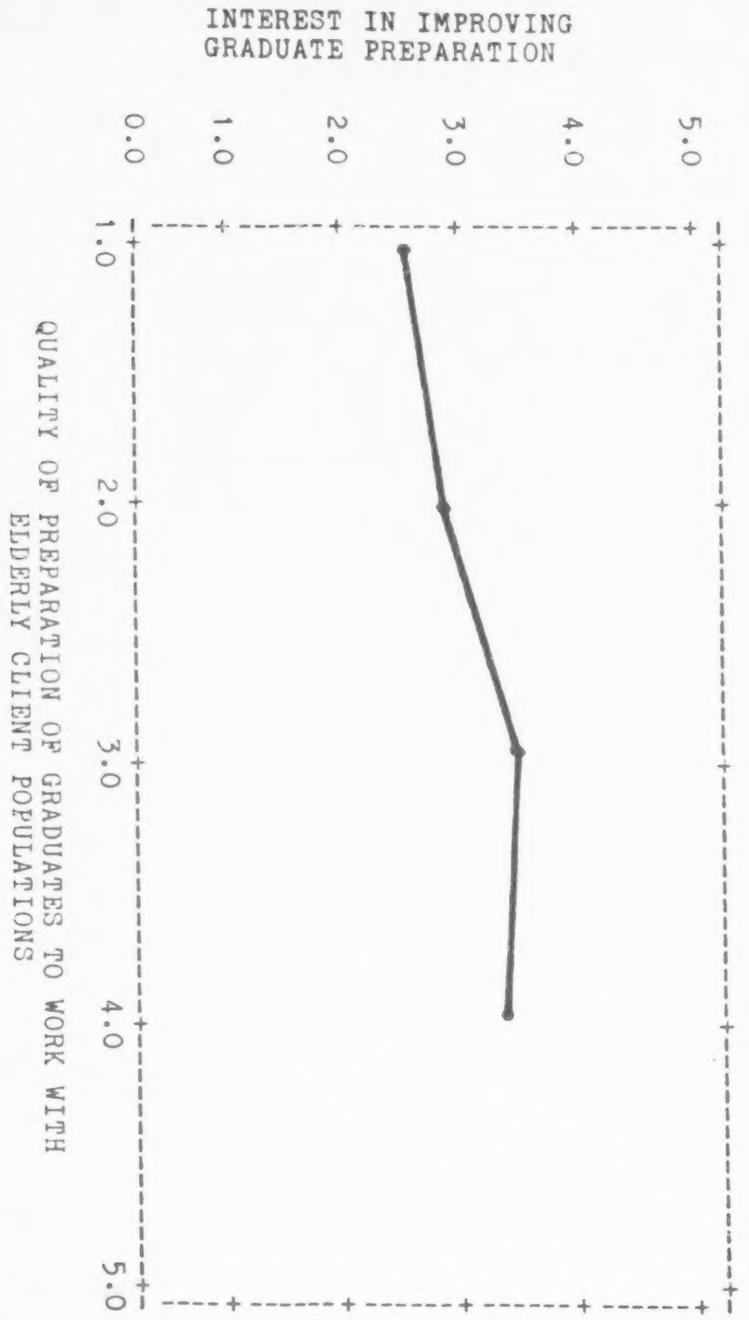
Average interest in improving the quality of graduate preparation as a function of self-rated quality of graduate preparation for CMI client populations



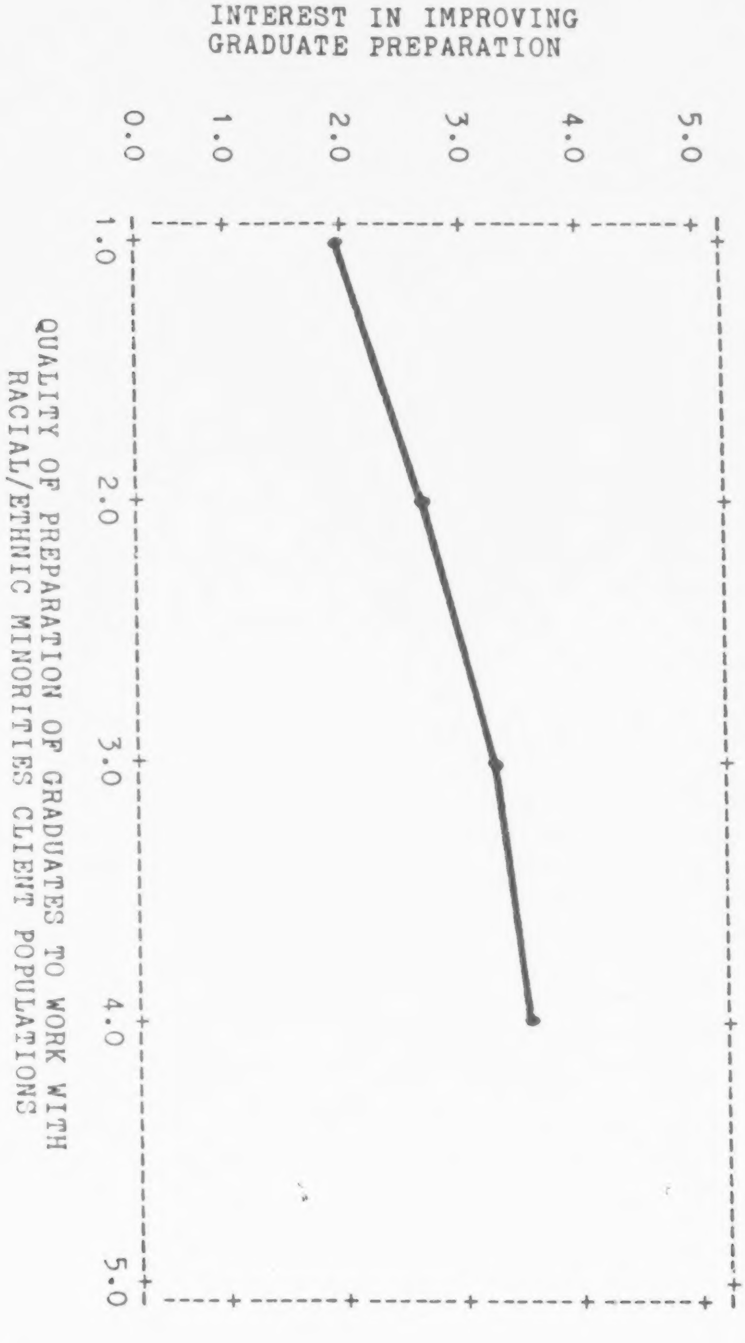
Average interest in improving the quality of graduate preparation as a function of self-rated quality of graduate preparation for severely disturbed children/youth client populations



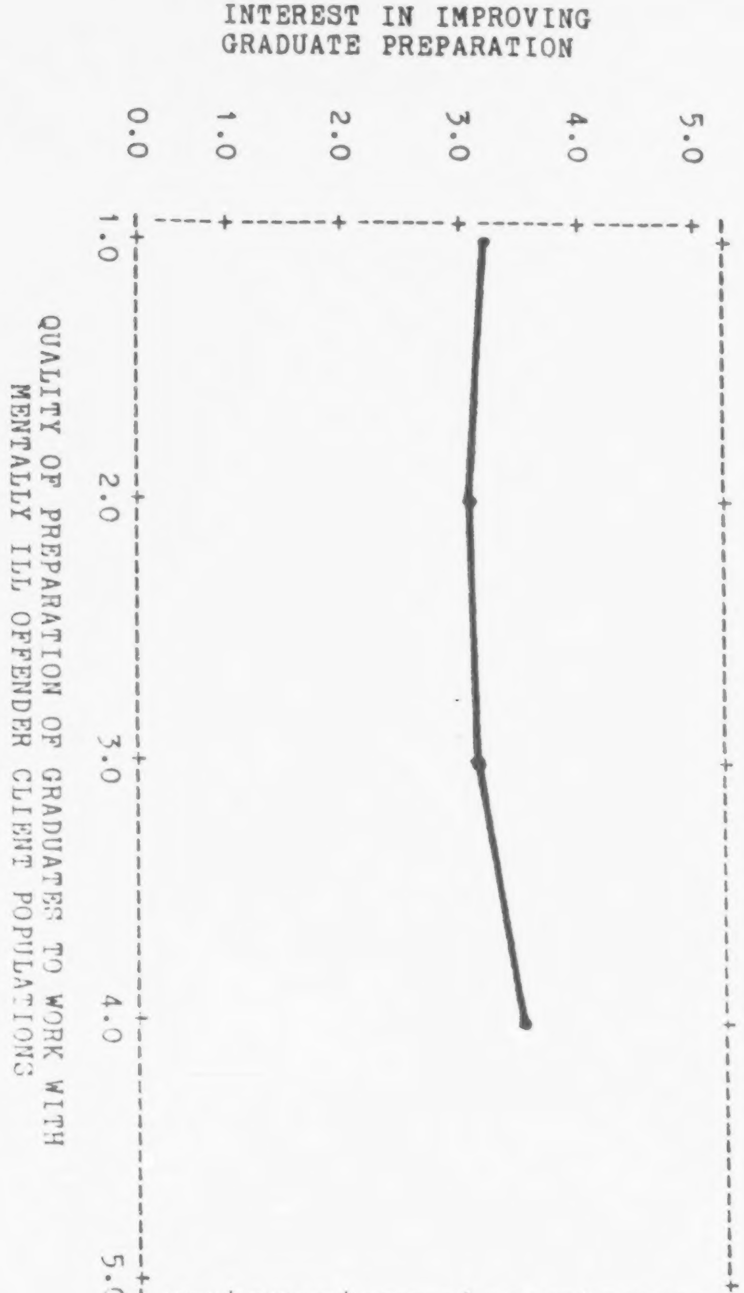
Average interest in improving the quality of graduate preparation as a function of self-rated quality of graduate preparation for elderly client populations



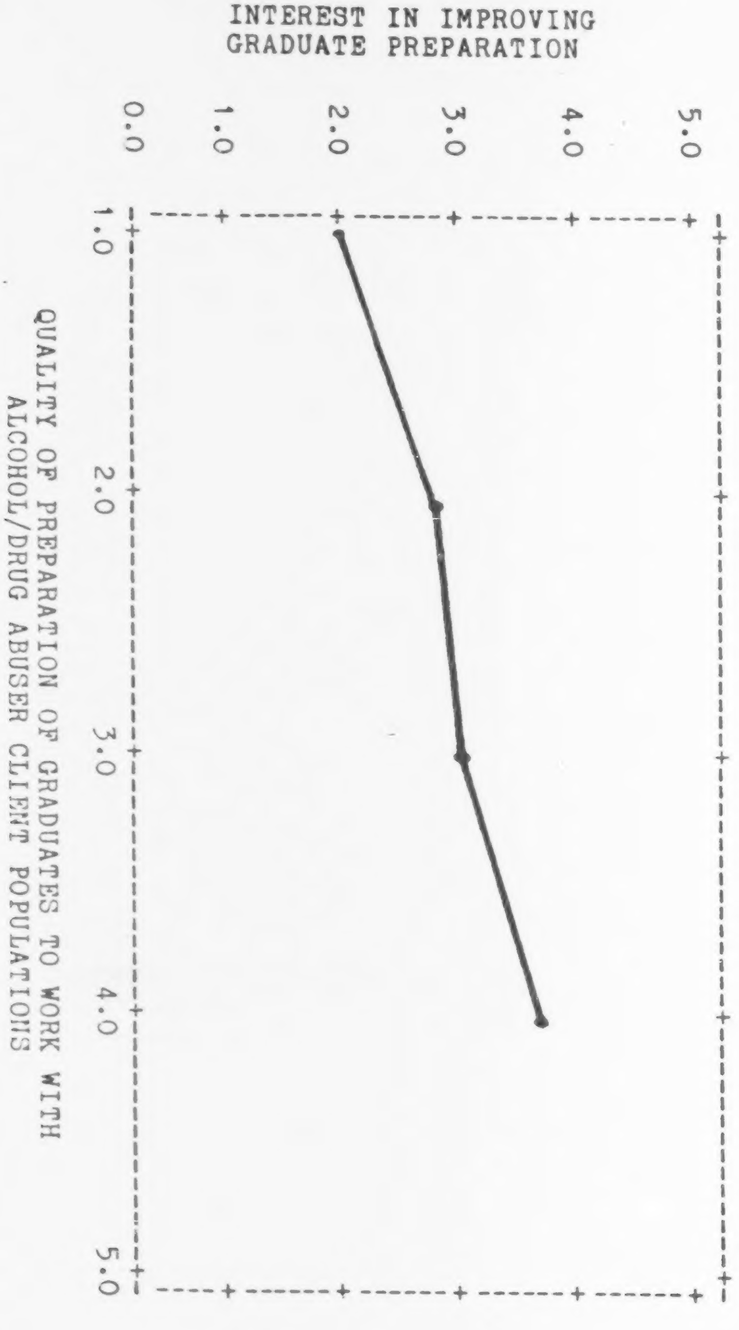
Average interest in improving the quality of graduate preparation as a function of self-rated quality of graduate preparation for racial/ethnic minorities client populations



Average interest in improving the quality of graduate preparation as a function of self-rated quality of graduate preparation for mentally ill offender client populations



Average interest in improving the quality of graduate preparation as a function of self-rated quality of graduate preparation for alcohol/drug abuser client populations



Appendix E. Multiple Regression Analysis of Effort/Preparation Scores Using Barriers as a Predictor

How important are each of the Barriers from Question 17 in predicting the effort and quality of graduate preparation for dealing with each of the state mental health system priority client groups? In order to answer this question, all of the barriers measures from Question 17 were used as predictor variables in a series of stepwise multiple regression analyses. One analysis was performed to predict the effort/preparation scores for each of the six client groups.

CMI Clients

In predicting effort/preparation scores for CMI clients, it was found that the first barrier, Program Philosophy/Goals predicted 15.9 percent of the variation and that Faculty Attitudes and Values accounted for an additional 3.0 percent of the variation over and above that predicted by the first barrier, while the Faculty Expertise Barrier failed to contributed uniquely to the prediction.

Severely Disturbed Children and Youth

For effort/preparation scores for severely disturbed children and youth, the only barrier accounting for a significant portion of the variation in composite scores, over and above the 10.4 percent predicted by the barrier of Program Philosophy/Goals, was the Faculty Expertise barrier which predicted an additional 2.7 percent of the variance.

Elderly Clients

When barriers were used to predict scores on the effort/preparation for elderly clients composite, Program Philosophy/Goals predicted 4.4 percent of the variance and Attitudes, Values of Faculty predicted an additional 2.9 percent of the variation.

Racial/Ethnic Minorities

No barriers were able to predict, significantly, programs' scores on the racial/ethnic minority effort/preparation composite.

Mentally Ill Offenders

Three different barriers were significantly related to the mentally ill offender client effort/preparation composite scores. These were: 1) Program Philosophy/Goals, accounting for 16 percent of the variation; 2) Faculty Expertise, accounting for an additional 4.6 percent of the variation; and 3) Lack of Cooperation From State Agencies, accounting for an additional 3.1 percent of the variation.

Alcohol/Drug Abusers

The strongest predictor of programs' scores on the alcohol/drug abuser effort/preparation composite was Program Philosophy/Goals, accounting for 13.1 percent of the variation, followed by Attitudes and Values of Faculty, predicting an additional 4.2 percent of the variation, and Lack of Cooperation from State Agencies, accounting for an additional 2.6 percent of the variation.

Appendix F. Topics of Student Research

Priority Client Groups

CMI

Diagnostic Efficiency of the DSM-III in Schizophrenia

Effects of Pets on a Day Treatment Population

An Evaulation of a Psycho-Social Rehabilitation Program in New Mexico

Status Offenders: Effects of Short-Term Psychotherapy in a Residential Program

Community Treatment Outcome in Schizophrenia

Identification of Individuals for Possible Diversion from the Involuntary Commitment Program at North/Northeast CMHC

Health and Psycho-Social Assessment Instruments for Community Long-term Care

A Measure of Admissibility of Voluntary Patients in Psychiatric Emergency Rooms

Psychiatric Patient Needs Assessment As It Pertains to Discharge Planning

Children and Youth

Infantile Autism

Psychological Ramifications of Non-Relative Adopted Children

Assessing Family Violence in Homes of Delinquents

Assessment of Impulsivity in Normal and Hospitalized Adolescents

Survival Experience for Male Adolescent Delinquents

Evaluation of Volunteer Counselor Training, Supervision and Impact in the Clark County Juvenile Court System

Elderly

An Assessment of Health Needs of Elderly Residents of a High-Rise Apartment in Northeast Portland

Structure and Attributes of Social Support Networks that Effect Health of the Aged

Assertive Training With Elderly Clients

Measures of Competence in Depressed Elderly

Comparison of Treatment Approaches for Depressed Elderly

Minority

Use of San Jose State University Counseling Services By Ethnic Minority Students

Alcohol and Drug Abuse

The Significant Variables of Clients Who Remain in a Therapeutic Community Heroin Rehabilitation Program

First Offense Drinking Drivers' Perceptions of the Drinking Problem

Other Client Groups and Treatment Issues

Patient Reactions to Placebo Therapy

Religion, Contraceptives Use and Family Satisfaction

Development of a Non-Profit Community Counseling Service Providing Low-Cost Therapy

Personality Characteristics of Las Vegas Lesbians

Characteristics of Female Offenders

Effort of Spouse Involvement in Law Enforcement Families

Professional Issues

Sexual Contact with Psychotherapists

The Perceived Influence of Personal Psychotherapy on the Therapist's Theoretical Orientation

Job Stressors and Stress Reduction Training for Mental Health Professionals

Relationship Between Assertiveness and Job Satisfaction Among Registered Nurses in a Psychiatric Hospital

Perceived Role and Job Satisfaction of Mental Health Administrators During a Period of Declining Resources and Services

Systems and Policy Issues

Community Awareness and Use of Mental Health Resources

Appendix G. Collaboration in Training/Services

Training

Curriculum Training Needs of Service Providers
(DMH Faculty Fellowship Program)

Collaboration with DMH and County MH in a Conference on Chronic Mental Illness

Management Training Project

Service Providers and Administrators Have Faculty Appointments in Psychiatry

Minority Manpower Efforts in Rural CMHCs

Minority Internship in Rural MHC

Students must write grants for host agencies as a course requirement. Several have been funded.

Evaluation of K-12 Prevention Curriculum with State Division of Alcohol and Drug Abuse

Family Therapy Training for Division of Family Services

Proposal for Training for Social Workers and Supervisors

Developed Proposal for Training 15 Social Workers to Work With CMI

Faculty Person on Statewide Chicano Mental Health Task Force which is Planning Training and Doing Needs Assessment

Academic Linkage Initiative

Rural MH Training

Peer Counselor Training With Desert Developmental Center

Development of CMI Curriculum

Student Unit at State Hospital

Services

Behavioral Testing and Screening at Caragon Hall

Services to the Elderly

CMI Project with Local CMHC Psychosocial Program

Work with State Prison

Work with Mental Health Centers

Rural Mental Health

Mentally Ill Offenders

Gero-Network

Covenant House

Inter-Community Alternatives Network

Family Outreach

Minority Issues in Forensic Populations

Asian Psychology

Aftercare of Released Mental Ill: Voluntary Civil Commitments Through the Emergency Room

Program Review Protocol for City and County Mental Health Services

Needs Assessments of Denver and Colorado

Faculty Member is on State Advisory Committee for Montana Youth Treatment Center

Appendix H. Topics of Faculty Research

Faculty research investigating state priority problems or issues; using populations or data from state facilities; or collaboratively developed between the university and state agencies or facilities.

State Priority Client Groups

CMI

Carmel State Hospital/UCLA Neuropsychiatric Center Research Program

Identification and Definition of Schizophrenia Using the MMPI

The Course of Schizophrenia Among Mexican Americans

Coping With Suicide

Social Network Interventions for Chronic Schizophrenics

Transients and Homeless

Patient Assault on Service Providers: Methodological Concerns

Social Support Networks of the CMI

Children and Youth

Program Evaluation of the State Hospital Adolescent Center

An Outcome Study of Social-Behavioral Skill Development in Male Adolescent Delinquency

Research and Training Center for Children and Youth (several projects)

Elderly

Services to the Elderly

Minority

Asian Refugee Project

Patterns of Utilization of Services By Blacks and Hispanics in Colorado's Mental Health System

Mentally Ill Offenders

Mentally Ill Offenders

Alcohol and Drug Abuse

Women and Substance Abuse

Indian Women and Substance Abuse

Prevention and Early Intervention with Indian Teenagers (Drug Abuse)

The Effect of Client Gender Diagnosis and Personality Characteristics on Alcoholism Counselors' Perceptions

Acupuncture and Methadone Withdrawal

Other Client Groups and Treatment Issues

Compliance with After Treatment: An Empirical Analysis of Patient Characteristics

Preventive Mental Health in the Classroom

Interdisciplinary Rural Service Center

California Self-Help Center

UCLA Family Project

Agoraphobia: Treatment-Modeling with Exposure

Cognitive-Behavioral and Exposure Treatment of Bulimia

Stress Reactions of College Students

Shape Up: The Effects of a Prison Aversion Program on Recidivism and Family Dynamics

Behavior Therapy Testing and Screening

Rapists' Perceptions of Victims: Cues in the Selection Process

The Role of Mediators in Attenuating Stress in Police Officers

A Model for Police Officer Burnout

The Impact of Four Different Intake Procedures Upon Clients' Continuance in Psychotherapy

Incest in Families

Characteristics of Individuals Who Have Been Abused or Are Abusers

Systems and Policy Issues

Mental Health Services and Perceived Needs in Wyoming

Mental Health Policy Recommendations of Specialists in Psychiatric/Mental Health Nursing

Needs Assessment of Colorado Mental Health